

# 2004 Bay Area HOV Lanes



Volumes, occupancies and violation rates for freeway High Occupancy Vehicle Lanes in the San Francisco Bay Area



California Department of Transportation  
District 4 Oakland  
Office of Highway Operations



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# INTRODUCTION

*The ANNUAL HOV LANE REPORT is prepared by the California Department of Transportation (Caltrans) District 4 Office of Highway Operations. This report contains information concerning High Occupancy Vehicle (HOV) lanes on the San Francisco Bay Area freeway system. Traffic performance data for mainline HOV lanes and HOV toll gates are provided for calendar year 2004. This data includes, traffic volumes, vehicle occupancies, HOV lane time savings, and HOV lane violation rates. Data for this report is collected twice\* annually — once in the Spring and once in the Fall — when normal commute traffic patterns and conditions generally occur. Volumes and occupancy data for HOV bypass lanes at metered freeway on-ramps are not included in this annual report; however, general information on these ramps is included.*

## **Major changes in 2004:**

- *HOV lane direct connectors at the US 101/SR 85 interchange, in San Jose, in Santa Clara County, opened to traffic on September 20, 2004, from northbound US 101 to northbound State Route 85 and on October 22, 2004, from southbound State Route 85 to southbound US 101.*
- *A southbound HOV lane on Interstate 680, in Contra Costa County, opened to traffic on September 13, 2004. The limits of the HOV lane are from south of State Route 4 to north of North Main Street, a distance of 4.1 miles.*

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*\* Due to resource shortfall, data was collected only in the Fall.*

## **HOV Report Website:**

*This report is available for download at [www.dot.ca.gov/dist4/](http://www.dot.ca.gov/dist4/) by clicking on the Commute Help Link.*

## **ACKNOWLEDGMENTS**

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# HOV FACILITIES SUMMARIES

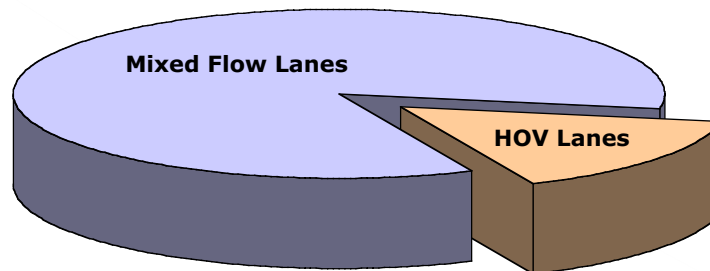
- **Comparison of HOV Lanes vs. Mixed Flow Lanes**
  - **Existing Mainline HOV Lanes**
  - **Metered On-Ramps with HOV Bypasses**
  - **Non-Metered HOV Lane On-Ramp**
  - **Mainline HOV Lanes Under Construction**
  - **Programmed HOV Lane Projects**
  - **Proposed HOV Lane Projects (Not Programmed)**
-

## COMPARISON OF HOV LANES VS. MIXED FLOW LANES (Peak-Hour)

### VEHICLES

(292,600 - vehicles per hour)

84%—



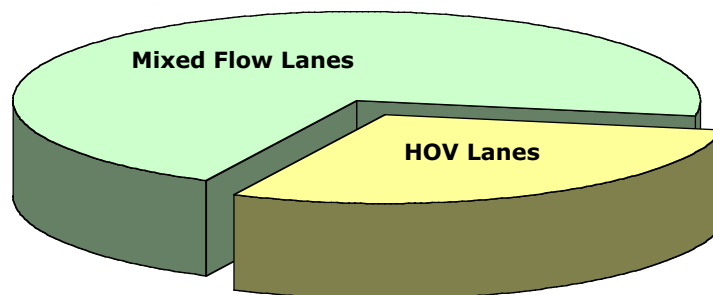
—16%

(53,900- vehicles per hour)

### PEOPLE

(321,200 - persons per hour)

71%—



—29%

(133,400 - persons per hour)

**NOTE:** Data shown is the relative proportion of vehicles or people in the mixed flow and carpool lanes averaged over all count locations.

# EXISTING MAINLINE HOV LANES

Route	Dir	Limits	Lane-miles	Min. occ.	Period of operation *	
<b>ALA-80</b>	W/B	Bay Bridge Toll Plaza	2.9	3+	5-10 AM	3-7 PM
<b>ALA-80</b>	W/B	Contra Costa Co Line to Powell St	4.2	3+	5-10 AM	3-7 PM
	E/B	Port of Oakland O.C. to Contra Costa Co Line	5.3	3+	5-10 AM	3-7 PM
<b>ALA-84</b>	W/B	Newark Blvd. to Dumbarton Bridge Toll Plaza	1.8	2+	5-10 AM	3-6 PM
<b>ALA-92</b>	W/B	Hesperian Blvd to San Mateo Bridge Toll Plaza	3.0	2+	5-10 AM	3-6 PM
<b>ALA-680</b>	S/B	Route 84 to Route 237 Calaveras Blvd.	14.0	2+	5- 9 AM	3-7 PM
<b>ALA-880</b>	S/B	Marina Blvd to Mission Blvd	20.5	2+	5- 9 AM	3-7 PM
	N/B	Mission Blvd to South of Rte 238 I/C	16.7	2+	5- 9 AM	3-7 PM
<b>ALA-880</b>	N/B	West Grand Ave to Rte 80	1.1	3+	5-10 AM	3-7 PM
<b>ALA-880</b>	N/B	16th Street to SFOBB Toll Plaza	1.2	3+	5-10 AM	3-7 PM
<b>CC-04</b>	W/B	West of Railroad Ave. to Port Chicago Hwy	6.5	2+	6- 9 AM	
	E/B	Port Chicago Hwy to West of Railroad Ave.	7.0	2+		3-7 PM
<b>CC-80</b>	W/B	Rte 4 to Alameda County Line	9.7	3+	5-10 AM	3-7 PM
	E/B	Alameda County Line to Rte 4	9.9	3+	5-10 AM	3-7 PM
<b>CC-680</b>	S/B	S/O Route 4 to N/O North Main St.	4.1	2+	6- 9 AM	3-7 PM
<b>CC-680</b>	S/B	Livorna Rd to Alcosta Blvd	11.9	2+	6- 9 AM	3-6 PM
	N/B	Alcosta Blvd to Livorna Rd	12.9	2+	6- 9 AM	3-6 PM
<b>MRN-101</b>	S/B	Greenbrae ped o/c to Strawberry ped o/c	3.7	2+	6:30-8:30 AM	
	N/B	S/O Richardson Bay Br to Corte Madera	3.5	2+	4:30-7:00 PM	
	S/B	Rte 37 to San Pedro Rd	6.1	2+	6:30-8:30 AM	
	N/B	San Pedro Rd to Rte 37	6.1	2+	4:30-7:00 PM	
<b>SCL-85</b>	S/B	Rte 101 (Mountain View) to Rte 101 (So. San Jose)	23.3	2+	5- 9 AM	3-7 PM
	N/B	Rte 101 (So. San Jose) to Rte 101 (Mt. View)	23.8	2+	5- 9 AM	3-7 PM
<b>SCL-101</b>	S/B	San Mateo Co. Line to Cochrane Rd	34.8	2+	5- 9 AM	3-7 PM
	N/B	Cochrane Rd to San Mateo Co. Line	34.0	2+	5- 9 AM	3-7 PM
<b>SCL-237</b>	W/B	McCarthy Blvd to Mathilda Ave	4.7	2+	5- 9 AM	3-7 PM
	E/B	Mathilda Ave to Rte 880/237 Jct.	6.7	2+	5- 9 AM	3-7 PM
<b>SCL-280</b>	S/B	Magdalena Ave to Meridian Ave	11.2	2+	5- 9 AM	3-7 PM
	N/B	Leland Ave to Magdalena Ave	10.7	2+	5- 9 AM	3-7 PM
<b>SM-101</b>	S/B	Whipple Ave to Santa Clara Co. Line	6.6	2+	5- 9 AM	3-7 PM
	N/B	Santa Clara Co. Line to Whipple Ave	6.6	2+	5- 9 AM	3-7 PM
<b>SOL-80</b>	E/B	Carquinez Bridge Toll Plaza	0.1	3+	5-10 AM	3-7 PM
<b>SON-101</b>	S/B	Route 12 to Wilfred Avenue	4.0	2+	7 - 9 AM	3-6:30 PM
	N/B	Wilfred Avenue to Route 12	4.0	2+	7 - 9 AM	3-6:30 PM

**TOTAL EXISTING LANE-MILES**

**322.6**

\* **NOTE:** All HOV lanes currently operate Monday thru Friday.

# METERED ON-RAMPS with HOV BYPASS LANES

Route	Dir	Ramp	Hours	HOVL metered?	Date opened	Notes
ALA-580	EB	Hopyard loop	2:30-7:30 pm	Yes	Jun 30, 2003	
ALA-580	EB	Hopyard diagonal	2:30-7:30 pm	Yes	Jun 30, 2003	
ALA-580	EB	Hacienda Loop	2:30-7:30 pm	Yes	Jun 30, 2003	
ALA-580	EB	Hacienda diagonal	2:30-7:30 pm	Yes	Jun 30, 2003	
ALA-580	EB	Santa Rita loop	2:30-7:30 pm	Yes	Jun 30, 2003	
ALA-580	EB	Santa Rita diagonal	2:30-7:30 pm	Yes	Jun 30, 2003	
ALA-880	NB	Fremont Blvd loop	24 hrs	Yes	Oct 20, 1999	
ALA-880	NB	Auto Mall Pkwy(Durham) loop	24 hrs	Yes	Oct 20, 1999	
ALA-880	NB	Auto Mall Pkwy(Durham)diag	24 hrs	Yes	Oct 20, 1999	
ALA-880	NB	Stevenson Blvd. diagonal	24 hrs	Yes	Oct 20, 1999	
ALA-880	NB	E/B Mowry Ave loop	24 hrs	Yes	Oct 20, 1999	
ALA-880	NB	Thornton Ave loop	24 hrs	Yes	Oct 20, 1999	
ALA-880	NB	Thornton Ave diagonal	24 hrs	Yes	Oct 20, 1999	
ALA-880	NB	Alvarado-Fremont Blvd diag	24 hrs	Yes	Oct 20, 1999	
ALA-880	NB	Alvarado-Niles Rd diagonal	24 hrs	Yes	Oct 20, 1999	
ALA-880	NB	Industrial Parkway diagonal	24 hrs	Yes	Dec 3, 1996	
ALA-880	NB	Tennyson Rd diag	24 hrs	Yes	Dec 3, 1996	
ALA-880	NB	West A-Street diag	24 hrs	Yes	Dec 3, 1996	
ALA-880	NB	Lewelling Blvd diagonal	24 hrs	Yes	Apr 28, 1999	
ALA-880	NB	98th Ave loop	24 hrs	Yes	Apr 28, 1999	
ALA-880	NB	E/B 23rd Ave. diag	24 hrs	Yes	Apr 28, 1999	
ALA-880	SB	Fremont Blvd. diag	24 hrs	Yes	Oct 19, 1999	
ALA-880	SB	Fremont Blvd. loop	24 hrs	Yes	Oct 19, 1999	
ALA-880	SB	Auto Mall Pkwy(Durham)Diag	24 hrs	Yes	Oct 19, 1999	
ALA-880	SB	Auto Mall Pkwy(Durham)loop	24 hrs	Yes	Oct 19, 1999	
ALA-880	SB	W/B Mowry Ave loop	24 hrs	Yes	Oct 19, 1999	
ALA-880	SB	Thornton Ave. diagonal	24 hrs	Yes	Oct 19, 1999	
ALA-880	SB	Thornton Ave. loop	24 hrs	Yes	Oct 19, 1999	
ALA-880	SB	Alvarado-Fremont Blvd diag	24 hrs	Yes	Oct 19, 1999	
ALA-880	SB	Alvarado-Niles Rd diagonal	24 hrs	Yes	Oct 19, 1999	
ALA-880	SB	Alvarado-Niles Rd loop	24 hrs	Yes	Oct 19, 1999	
ALA-880	SB	Whipple Rd diag	24 hrs	Yes	Oct 29, 1996	
ALA-880	SB	Tennyson Rd diag	24 hrs	Yes	Oct 29, 1996	
ALA-880	SB	Winton Ave diag	24 hrs	Yes	Oct 29, 1996	
ALA-880	SB	West A-Street diag	24 hrs	Yes	Oct 29, 1996	
ALA-880	SB	E/B Davis St(Route 112) diag	24 hrs	Yes	Apr 27, 1999	
ALA-880	SB	W/B Davis St(Route 112)loop	24 hrs	Yes	Apr 27, 1999	
ALA-880	SB	98th Ave diagonal	24 hrs	Yes	Apr 27, 1999	
ALA-880	SB	Hegenberger diagonal	24 hrs	Yes	Apr 27, 1999	
ALA-880	SB	Oak St. diagonal	24 hrs	Yes	Apr 27, 1999	

- NOTES:**
- (a) Minimum occupancy requirement for all HOV bypass lanes is two persons per vehicle.
  - (b) Motorcycles and inherently low-emission vehicles (ILEVs) with DMV issued decal are permitted.
  - (c) Bypass lane restrictions are in effect 7 days a week unless noted otherwise.

# METERED ON-RAMPS with HOV BYPASS LANES

Route	Dir	Ramp	Hours	HOVL metered?	Date opened	Notes
SCL-85	NB	SB Rte 101 connector	5-9am & 3-7pm	Yes	Sep 20, 2004	Monday - Friday
SCL-85	NB	SB Rte 87 connector	5-9am & 3-7pm	Yes	Jul 8, 2003	Monday - Friday
SCL-85	NB	Bernal Rd Loop	24 hrs	Yes	Sep 20, 2004	7 days/week
SCL-85	NB	Bernal Rd diag	24 hrs	Yes	Aug 26, 1994	7 days/week
SCL-85	NB	Great Oaks Blvd diag	24 hrs	Yes	Aug 19, 1994	7 days/week
SCL-85	NB	Cottle Rd diag	24 hrs	Yes	Aug 19, 1994	7 days/week
SCL-85	NB	Blossom Hill Rd loop	24 hrs	Yes	Aug 19, 1994	7 days/week
SCL-85	NB	Santa Teresa Blvd loop	24 hrs	Yes	Oct 19, 1994	7 days/week
SCL-85	NB	Almaden Expwy (nb) loop	24 hrs	Yes	Mar 19, 1999	7 days/week
SCL-85	NB	Bascom Ave diag	24 hrs	Yes	Oct 19, 1994	7 days/week
SCL-85	NB	Winchester Blvd diag	24 hrs	Yes	Nov 14, 1994	7 days/week
SCL-85	NB	Saratoga Ave diag	24 hrs	Yes	Oct 20, 1994	7 days/week
SCL-85	SB	Almaden Expwy diag	24 hrs	Yes	Oct. 19, 1994	7 days/week
SCL-85	SB	Bascom Ave diag	24 hrs	Yes	Oct 19, 1994	7 days/week
SCL-85	SB	Camden Ave diag	24 hrs	Yes	Apr 4, 1995	7 days/week
SCL-85	SB	Stevens Creek diag	24 hrs	Yes	Oct 19, 1994	7 days/week
SCL-101	NB	Bernal Rd loop	24 hrs	Yes	Jun 10, 1996	7 days/week
SCL-101	NB	Blossom Hill diag	24 hrs	Yes	Jun 23, 1992	7 days/week
SCL-101	NB	Capitol Expwy diag	24 hrs	Yes	Jul 11, 1997	7 days/week
SCL-101	NB	SB Rte 680 connector	5:30-9am	No	Sep 2, 1982	Monday - Friday
SCL-101	NB	Guadalupe Pkwy connector	5:30-9am	Yes	Feb 12, 1980	Monday - Friday
SCL-101	NB	Trimble Rd diag	24 hrs	Yes	Nov 1, 1991	7 days/week
SCL-101	NB	Montague Expwy diag	24 hrs	Yes	Feb 12, 1980	7 days/week
SCL-101	NB	Lawrence Expwy (nb) loop	24 hrs	Yes	Mar 8, 1999	7 days/week
SCL-101	NB	Lawrence Expwy (sb)diag	24 hrs	Yes	Mar 8, 1999	7 days/week
SCL-101	NB	San Tomas Expwy loop	5:30-9 am	No	Feb 12, 1980	Monday - Friday
SCL-237	EB	Lawrence Expwy diag	24 hrs	Yes	Aug. 14, 1998	7 days/week
SCL-237	EB	Great America Pkwy diag	24 hrs	Yes	Sep 24, 1996	7 days/week
SCL-237	EB	N. First Street diag	24 hrs	Yes	Sep 24, 1996	7 days/week
SCL-237	EB	Zanker Rd diag	24 hrs	Yes	Sep 24, 1996	7 days/week
SCL-280	NB	Wolfe Rd loop	6-9 am	Yes	Jun 8, 1976	Monday - Friday
SCL-280	SB	Wolfe Rd loop	24 hrs	Yes	Apr 27, 1993	7 days/week
SCL-280	SB	Wolfe Rd diag	24 hrs	Yes	Apr 27, 1993	7 days/week
SCL-280	SB	De Anza Blvd diag	24 hrs	Yes	Apr 27, 1993	7 days/week
SCL-880	NB	Calaveras Blv (wb) (diag)	24 hrs	Yes	Sep 9, 2003	7 days/week
SCL-880	NB	Rte 237 (EB) Connector OC	5-9am & 3-7pm	Yes	Sep 9, 2003	Monday-Friday





# NON-METERED HOV LANE ON-RAMP

Route	Dir	Ramp	Hours	HOVL metered?	Date opened	Notes
SF-80	EB	Sterling St on-ramp to SFOBB	3:30-7:00 PM	No	Aug 30, 1982	

## NOTES

- (a) *Minimum occupancy requirement is 3 or more persons per vehicle.*
- (b) *2 - seater vehicles with 2 persons, motorcycles and inherently low-emission vehicles (ILEVs) with DMV issued decal are permitted.*

# MAINLINE HOV LANES UNDER CONSTRUCTION

Estimated Opening	County Route	Location	Lane Miles	Min. Occ.
Feb-05	SCL-87 SB	Rte 101 I/C to Julian Street	2.8	2+
Apr-05	SCL-87 NB	Julian Street to Rte 101 I/C	2.8	2+
May-05	MRN-101 SB	Corte Madera Cr. to 580/101 Separation	1.3	2+
May-05	MRN-101 NB	Corte Madera Cr. to 580/101 Separation	1.3	2+
May-05	MRN-101	Greenbrae POC to Corte Madera Cr	0.2	2+
Summer 2005	SCL-237	Rte 237 and 880 Connectors	0.3	2+
Feb-06	SCL-85/101	Rte 85 and 101 Connectors (Mountain View)	1.4	2+
Spring 2005	CC-680	Route 242 to Marina Vista Blvd.	7.5	2+
2006	CC-4	w/o Railroad Ave to w/o Loveridge	1.6	2+
Jul-07	SCL-87	Julian St to Rte 280 I/C (NB, SB)	2.4	2+
2009	SCL/ALA-880	Rte 237 to Mission Blvd (Rte 262)	10.6	2+

**TOTAL LANE-MILES UNDER CONSTRUCTION      32.2**

## PROGRAMMED HOVL PROJECTS (From 2002 STIP)

County Route	EA	Location	Construct year	Cost (Prog. year)	Lane Miles
ALA-84	443900	Westbound HOV On-ramp at Newark Ave	2006	\$5,800,000	0.8
ALA-84	444001	Newark Ave to I-880/SR 84 I/C	2005	\$4,800,000	1.6
ALA-580	29080K	Tassajara Rd to Vasco Rd (EB, WB)	2009	\$147,000,000	16.6
SCL/ALA-680	286000	Rte 237 to Rte 84 - NB	2009	\$136,000,000	13.0
CC-4	228500	Loveridge to Somersville	2009	\$74,000,000	4.2
CC-80	263700	Carquinez Bridge to Rte 4 - WB	2006	\$20,000,000	2.7
CC-80		Rte 4 to Carquinez Bridge - EB	2008	\$34,000,000	2.7
MRN/SON-101	264000	Route 37 to Old Redwood Highway	2016	\$169,400,000	32.9
MRN-101	226141	Coleman School POC to N. San Pedro Rd.	2008	\$16,900,000	3.2
MRN-101	226151	580/101 Separation to Coleman School POC	2008	\$29,700,000	3
SON-101	0A1800	Old Redwood Highway to Rohnert Park Expwy	2010	\$92,500,000	12.8
SON-101	129650	Rohnert Park Expwy to Wilfred Ave	2010	\$36,100,000	2.6
SON-101	263900	Steel Lane to Bicentennial Way	2008	\$9,900,000	1.2
SON-101	0A100K	Bicentennial Way to Windsor	2012	\$67,700,000	14.2
SON-101	245400	Rte 12 to Steele Lane	2007	\$61,600,000	2.8

**TOTAL**

\$905,400,000	114.3
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## PROGRAMMED HOVL PROJECTS (Locally Funded)

County Route	EA	Location	Construct year	Cost (Prog. year)	Lane miles
SCL-87	43961K	Rte 280 I/C to Santa Teresa Blvd (NB,SB)	2007	\$74,800,000	9.8

**TOTAL**

\$74,800,000	9.8
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## PROPOSED HOVL PROJECTS (Not Programmed)

County Route	EA	Location	Post-Mile	Cost (Prog. year)	Lane Miles
CC-4	22850K	Somersville to SR 160	26.0/31.0	unknown	10

TOTAL

	10
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## **DATA SUMMARIES**

- **HOV Lane Peak Hour Volumes**
  - **HOV & Non-HOV Lane Peak Hour Comparisons**
  - **HOV Lane Peak Period Violation Rates**
  - **HOV Lane Peak Hour Time Savings and  
Average Speeds**
-

# HOV LANE PEAK HOUR VOLUMES

			<b>A.M.</b>	<b>P.M.</b>
			Peak Hr (veh)	Peak Hr (veh)
<b>ALA-80</b>	WB	Bay Bridge Toll Plaza	3628	951
<b>ALA-80</b>	WB	Contra Costa County Line to Powell St	1481	N/A
	EB	Port of Oakland O.C. to Contra Costa Co. Line	N/A	1224
<b>ALA-84</b>	WB	Newark Blvd to Dumbarton Bridge Toll Plaza	1181	N/A
<b>ALA-92</b>	WB	Hesperian Blvd to San Mateo Bridge Toll Plaza	958	N/A
<b>ALA-680</b>	SB	Route 84 to Route 237 Calaveras Blvd.	613	N/A
<b>ALA-880</b>	SB	Marina Blvd to Whipple Road	1090	953
		Whipple Road to Mission Blvd.	1039	921
	NB	Mission Blvd to Whipple Road	442	757
		Whipple Road to South of Rte 238 I/C	1161	1190
<b>ALA-880</b>	NB	16th St to SFOBB Toll Plaza	657	N/A
<b>CC-04</b>	WB	West of Railroad Ave. to Port Chicago Hwy	874	No HOV
	EB	Port Chicago Hwy to West of Railroad Ave.	No HOV	769
<b>CC-80</b>	WB	Route 4 to Alameda County Line	1334	N/A
	EB	Alameda County Line to Route 4	N/A	1189
<b>CC-680</b>	SB	S/O Route 4 to N/O North Main St	814	387
<b>CC-680</b>	SB	Livorna Rd. to Alcosta Blvd.	814	911
	NB	Alcosta Blvd. to Livorna Rd.	797	1249
<b>MRN-101</b>	SB	Rte 37 to N. San Pedro Rd	1306	No HOV
		Greenbrae I/C to Richardson Bay Bridge	583	No HOV
	NB	Richardson Bay Bridge to Greenbrae I/C	No HOV	758
		N. San Pedro Rd to Rte 37	No HOV	702
<b>SCL-85</b>	SB	Rte 101 (Mountain View) to Rte 280	N/A	570
		Rte 280 to Almaden Expwy	N/A	740
		Almaden Expwy to Rte 101 (So. San Jose)	N/A	644
	NB	Rte 101 (So. San Jose) to Almaden Expwy	394	N/A
		Almaden Expwy to Rte 280	973	N/A
		Rte 280 to Rte 101 (Mountain View)	762	N/A
<b>SCL-101</b>	SB	San Mateo Co. Line to Ellis St	722	913
		Ellis St to Guadalupe Pkwy	N/A	855
		Guadalupe Pkwy to 101/280/680 I/C	N/A	745
		101/280/680 I/C to Bernal Rd	N/A	730
		Bernal Rd to Cochrane Rd	N/A	596
	NB	Cochrane Road to Bernal Road	929	N/A
		Bernal Rd to 101/280/680 I/C	787	N/A
		101/280/680 I/C to Guadalupe Pkwy	1304	N/A
		Guadalupe Pkwy to Ellis St	533	N/A
		Ellis St to San Mateo Co. Line	703	871

## HOV LANE PEAK HOUR VOLUMES

			<b>A.M.</b>	<b>P.M.</b>
			Peak Hr (veh)	Peak Hr (veh)
<b>SCL-237</b>	WB	McCarthy Blvd to Mathilda Ave	575	208
	EB	Mathilda Ave to Rte 880/237 Jct.	N/A	624
<b>SCL-280</b>	SB	Magdalena Ave to Leland Ave	N/A	907
	NB	Leland Ave to Magdalena Ave	771	N/A
<b>SM-101</b>	SB	Whipple Ave to Santa Clara Co. Line	703	493
	NB	Santa Clara Co. Line to Whipple Ave	526	763
<b>SOL-80</b>	EB	Carquinez Bridge Toll Plaza	N/A	983
<b>SON-101</b>	S/B	Route 12 to Wilfred Avenue	394	1021
	N/B	Wilfred Avenue to Route 12	342	614

N/A : Due to Resource shortfall 2004 data is not available.



# PEAK HOUR HOV & non-HOV LANE COMPARISONS

				% of all vehicles		% of all Persons				
					in HOVL	in Non-HOVL	in HOVL	in Non-HOVL	Number of Non-HOV Lanes	in Non-HOVL (Avg per Lane)
ALA-80	WB	Bay Bridge Toll Plaza	AM	* 39%	** 61%	* 65%	** 35%	18	2%	
			PM	* 11%	** 89%	* 27%	** 73%	18	4%	
ALA-80	WB	Contra Costa County Line to Powell Street	AM	17%	83%	34%	66%	4	16%	
			PM	N/A	N/A	N/A	N/A	4	N/A	
	EB	Port of Oakland O.C. to Contra Costa Co. Line	AM	N/A	N/A	N/A	N/A	4	N/A	
			PM	15%	85%	32%	68%	4	17%	
ALA-84	WB	Newark Blvd to Dumbarton Bridge Toll Plaza	AM	31%	69%	50%	50%	3	17%	
			PM	N/A	N/A	N/A	N/A	3	N/A	
ALA-92	WB	Hesperian Blvd to San Mateo Bridge Toll Plaza	AM	20%	80%	37%	63%	3	21%	
			PM	N/A	N/A	N/A	N/A	3	N/A	
ALA-680	SB	Route 84 to Route 237 Calaveras Blvd	AM	9%	91%	16%	84%	3	28%	
			PM	9%	91%	16%	84%	3	28%	
ALA-880	SB	Marina Blvd to Whipple Rd	AM	19%	81%	32%	68%	3	23%	
			PM	16%	84%	26%	74%	3	25%	
		Whipple Rd to Mission Blvd	AM	19%	81%	33%	67%	3	22%	
			PM	15%	85%	27%	73%	3	24%	
	NB	Mission Blvd to Whipple Rd	AM	10%	90%	23%	77%	3	26%	
			PM	14%	86%	24%	76%	3	25%	
		Whipple Rd to South of Rte 238 I/C	AM	18%	82%	34%	66%	3	22%	
			PM	20%	80%	37%	63%	3	21%	
ALA-880	NB	16th Street to SFOBB	AM	38%	62%	66%	34%	2	17%	
			PM	N/A	N/A	N/A	N/A	2	N/A	
CC-04	WB	W of Railroad Ave to Port Chicago Hwy	AM	13%	87%	23%	77%	3	26%	
	EB	Port Chicago to W of Railroad Avenue	PM	11%	89%	19%	81%	3	27%	
CC-80	WB	Route 4 to Alameda County Line	AM	25%	75%	50%	50%	3	17%	
			PM	N/A	N/A	N/A	N/A	3	N/A	
	EB	Alameda County Line to Route 4	AM	N/A	N/A	N/A	N/A	3	N/A	
			PM	18%	82%	41%	59%	3	20%	
CC-680	SB	S/O Route 4 to N/O North Main St	AM	9%	91%	16%	84%	5	17%	
			PM	12%	88%	10%	90%	5	18%	
CC-680	SB	Livorna Rd to Alcosta Blvd	AM	14%	86%	27%	73%	3	24%	
			PM	15%	85%	27%	73%	3	24%	
	NB	Alcosta Blvd to Livorna Rd	AM	13%	87%	30%	70%	3	23%	
			PM	19%	81%	35%	65%	3	22%	
MRN-101	SB	Rte 37 to N. San Pedro Rd	AM	24%	76%	41%	59%	3	20%	
		Greenbrae I/C to Richardson Bay Brdg	AM	11%	89%	28%	72%	3	24%	
	NB	Richardson Bay Brdg to Greenbrae I/C	PM	14%	86%	30%	70%	3	23%	
		N. San Pedro Rd to Rte 37	PM	10%	90%	22%	78%	3	26%	
SCL-85	SB	Rte 101 (Mtn View) to Rte 280	AM	N/A	N/A	N/A	N/A	2	N/A	
			PM	13%	87%	22%	78%	2	39%	
		Rte 280 to Almaden Expwy	AM	N/A	N/A	N/A	N/A	2	N/A	
			PM	15%	85%	24%	76%	2	38%	
		Almaden Expwy to Rte 101 (So. San Jose)	AM	N/A	N/A	N/A	N/A	2	N/A	
			PM	18%	82%	29%	71%	2	35%	
	NB	Rte 101 (So. San Jose) to Almaden Expwy	AM	12%	88%	20%	80%	2	40%	
			PM	N/A	N/A	N/A	N/A	2	N/A	
		Almaden Expwy to Rte 280	AM	23%	77%	36%	64%	2	32%	
			PM	N/A	N/A	N/A	N/A	2	N/A	
		Rte 280 to Rte 101 (Mtn View)	AM	18%	82%	32%	68%	2	34%	
			PM	N/A	N/A	N/A	N/A	2	N/A	

# PEAK HOUR HOV & non-HOV LANE COMPARISONS

				% of all vehicles		% of all Persons			
				in HOVL	in Non-HOVL	in HOVL	in Non-HOVL	Number of Non-HOV Lanes	in Non-HOVL (Avg per Lane)
<b>SCL-101</b>	SB	San Mateo Co. Line to Ellis St	AM	11%	89%	20%	80%	3	27%
			PM	15%	85%	26%	74%	3	25%
		Ellis St to Guadalupe Pkwy	AM	N/A	N/A	N/A	N/A	3	N/A
			PM	15%	85%	25%	75%	3	25%
		Guadalupe Pkwy to 101/280/680 I/C	AM	N/A	N/A	N/A	N/A	3	N/A
			PM	12%	88%	21%	79%	3	26%
		101/280/680 I/C to Bernal Rd	AM	N/A	N/A	N/A	N/A	3	N/A
			PM	14%	86%	25%	75%	3	25%
		Bernal Rd to Cochrane Rd	AM	N/A	N/A	N/A	N/A	3	N/A
			PM	14%	86%	23%	77%	3	26%
	NB	Cochrane Rd to Bernal Road	AM	18%	82%	32%	68%	3	23%
			PM	N/A	N/A	N/A	N/A	3	N/A
		Bernal Rd to 101/280/680 I/C	AM	13%	87%	23%	77%	3	26%
			PM	N/A	N/A	N/A	N/A	3	N/A
		101/280/680 I/C to Guadalupe Pkwy	AM	18%	82%	32%	68%	3	23%
			PM	N/A	N/A	N/A	N/A	3	N/A
		Guadalupe Pkwy to Ellis St	AM	9%	91%	16%	84%	3	28%
			PM	N/A	N/A	N/A	N/A	3	N/A
		Ellis St to San Mateo Co. Line	AM	12%	88%	21%	79%	3	26%
			PM	14%	86%	23%	77%	3	26%
<b>SCL-237</b>	WB	McCarthy Blvd to Mathilda Ave	AM	11%	89%	21%	79%	2	39%
			PM	5%	95%	9%	91%	2	45%
	EB	Mathilda Ave to Rte 880/237 Jct	AM	N/A	N/A	N/A	N/A	2	N/A
			PM	14%	86%	26%	74%	2	37%
<b>SCL-280</b>	SB	Magdalena Ave to Leland Ave	AM	N/A	N/A	N/A	N/A	3	N/A
			PM	17%	83%	28%	72%	3	24%
	NB	Leland Ave to Magdalena Ave	AM	17%	83%	29%	71%	3	24%
			PM	N/A	N/A	N/A	N/A	3	N/A
<b>SM-101</b>	SB	Whipple Ave to Santa Clara Co. Line	AM	13%	87%	24%	76%	3	25%
			PM	9%	91%	16%	84%	3	28%
	NB	Santa Clara Co. Line to Whipple Ave	AM	14%	86%	24%	76%	3	25%
			PM	17%	83%	28%	72%	3	24%
<b>SOL-80</b>	EB	Carquinez Bridge	AM	N/A	N/A	N/A	N/A	11	N/A
			PM	18%	82%	41%	59%	11	5%
<b>SON-101</b>	SB	Route 12 to Wilfred Avenue	AM	10%	90%	18%	82%	2	41%
			PM	23%	77%	35%	65%	2	32%
	NB	Wilfred Avenue to Route 12	AM	9%	91%	15%	85%	2	43%
			PM	15%	85%	25%	75%	2	38%

\* Total in all 4 HOVL's combined.

\*\* Total in all 18 Non HOVL's combined.

N/A : Due to Resource shortfall 2004 data is not available.

## HOV LANE PEAK PERIOD VIOLATION RATE SUMMARY

			A.M.	P.M.
<b>ALA-80</b>	WB	Bay Bridge Toll Plaza	10.0%	9.1%
<b>ALA-80</b>	WB	Contra Costa County Line to Powell St	7.9%	N/A
	EB	Port of Oakland O.C. to Contra Costa Co. Line	N/A	21.5%
<b>ALA-84</b>	WB	Newark Blvd to Dumbarton Bridge Toll Plaza	0.6%	N/A
<b>ALA-92</b>	WB	Hesperian Blvd to San Mateo Bridge Toll Plaza	2.6%	N/A
<b>ALA-680</b>	SB	Route 84 to Route 237 Calaveras Blvd	9.8%	N/A
<b>ALA-880</b>	SB	Marina Blvd to Whipple Road	3.6%	2.6%
		Whipple Road to Mission Blvd.	2.7%	6.8%
	NB	Mission Blvd to Whipple Road	3.8%	0.2%
		Whipple Road to South of Rte 238 I/C	5.3%	1.6%
<b>ALA-880</b>	NB	16th St to SFOBB Toll Plaza	15.5%	N/A
<b>CC-04</b>	WB	West of Railroad Ave to Port Chicago Hwy.	2.0%	No HOV
	EB	Port Chicago Hwy to West of Railroad Ave	No HOV	1.7%
<b>CC-80</b>	WB	Rte 4 to Alameda County Line	9.2%	N/A
	EB	Alameda County Line to Rte 4	N/A	9.3%
<b>CC-680</b>	SB	S/O Route 4 to N/O North Main St.	2.0%	4.2%
<b>CC-680</b>	SB	Livorna Rd. to Alcosta Blvd.	4.5%	2.6%
	NB	Alcosta Blvd. to Livorna Rd.	3.0%	2.4%
<b>MRN-101</b>	SB	Rte 37 to N. San Pedro Rd	1.9%	No HOV
		Greenbrae I/C to Richardson Bay Bridge	4.4%	No HOV
	NB	Richardson Bay Bridge to Greenbrae I/C	No HOV	1.9%
		N. San Pedro Rd to Rte 37	No HOV	2.5%
<b>SCL-85</b>	SB	Rte 101 (Mountain View) to Rte 280	N/A	0.7%
		Rte 280 to Almaden Expwy	N/A	0.5%
		Almaden Expwy to Rte 101 (So. San Jose)	N/A	0.2%
	NB	Rte 101 (So. San Jose) to Almaden Expwy	0.0%	N/A
		Almaden Expwy to Rte 280	0.4%	N/A
		Rte 280 to Rte 101 (Mountain View)	0.7%	N/A
<b>SCL-101</b>	SB	San Mateo Co. Line to Ellis St	0.3%	0.3%
		Ellis St to Guadalupe Pkwy	N/A	0.4%
		Guadalupe Pkwy to 101/280/680 I/C	N/A	0.7%
		101/280/680 I/C to Bernal Rd	N/A	0.3%
		Bernal Rd to Cochrane Road	N/A	1.5%
	NB	Cochrane Rd to Bernal Rd	0.2%	N/A
		Bernal Rd to 101/280/680 I/C	1.3%	N/A
		101/280/680 I/C to Guadalupe Pkwy	0.2%	N/A
		Guadalupe Pkwy to Ellis St	0.7%	N/A
		Ellis St to San Mateo Co. Line	0.3%	2.8%

## HOV LANE PEAK PERIOD VIOLATION RATE SUMMARY

			A.M.	P.M.
<b>SCL-237</b>	WB	Mcarthy On to Mathilda Ave	0.9%	10.8%
	EB	Mathilda Ave to Rte 880/237 Jct.	N/A	0.8%
<b>SCL-280</b>	SB	Magdalena Ave to Leland Ave	N/A	2.3%
	NB	Leland Ave to Magdalena Ave	2.4%	N/A
<b>SM-101</b>	SB	Whipple Ave to Santa Clara Co. Line	0.1%	1.5%
	NB	Santa Clara Co. Line to Whipple Ave	0.7%	0.1%
<b>SOL-80</b>	EB	Carquinez Bridge Toll Plaza	N/A	9.4%
<b>SON-101</b>	SB	Route 12 to Wilfred Avenue	2.2%	1.2%
	NB	Wilfred Avenue to Route 12	4.4%	2.2%

N/A: Due to Resource shortfall 2004 data is not available.

# HOV LANE PEAK HOUR TIME SAVINGS AND AVERAGE SPEEDS

				Travel Time (minutes) Non-HOVL	Travel Time (minutes) HOVL	HOVL Time Saving (minutes)	Avg. Speed (mph) Non-HOVL	Avg. Speed (mph) HOVL
<b>ALA-80</b>	WB	Bay Bridge Toll Plaza	AM	17	4	13	5	33
			PM	11	2	9	14	65
<b>ALA-80</b>	WB	Contra Costa County Line to Powell St	AM	9	7	2	26	36
			PM	10	4	6	29	65
	EB	Port of Oakland O.C. to Contra Costa Co. Line	AM	5	5	0	65	65
			PM	18	10	8	31	46
<b>ALA-84</b>	WB	Newark Blvd to Dumbarton Bridge Toll Plaza	AM	3	2	1	54	60
			PM	3	2	1	54	60
<b>ALA-92</b>	WB	Hesperian Blvd to San Mateo Bridge Toll Plaza	AM	3	3	0	60	60
			PM	3	3	0	60	60
<b>ALA-680</b>	SB	Route 84 to Route 237 Calaveras Blvd.	AM	16	13	3	53	65
<b>ALA-880</b>	SB	Marina Blvd. to Whipple Road	AM	25	8	17	20	65
			PM	13	8	5	40	65
		Whipple Road to Mission Blvd	AM	30	11	19	23	65
			PM	15	11	4	48	65
	NB	Mission Blvd. to Whipple Road	AM	17	11	6	45	65
			PM	22	11	11	32	65
		Whipple Road to South of Rte 238 I/C	AM	12	4	8	24	65
			PM	15	4	11	20	65
<b>ALA-880</b>	NB	16th St to SFOBB Toll Plaza	AM	20	2	18	10	55
			PM	3	2	1	44	65
<b>CC-04</b>	WB	West of Railroad to Port Chicago Hwy	AM	10	6	4	35	65
	EB	Port Chicago Hwy to West of Railroad Ave.	PM	12	6	6	30	65
<b>CC-80</b>	WB	Rte 4 to Alameda County Line	AM	23	13	10	35	51
			PM	11	11	0	65	65
	EB	Alameda County Line to Rte 4	AM	10	10	0	65	65
			PM	19	14	5	37	45
<b>CC-680</b>	SB	S/O Route 4 to N/O North Main St	AM	10	5	5	17	65
			PM	5	5	0	65	65
<b>CC-680</b>	SB	Livorna Rd to Alcosta Blvd	AM	16	11	5	45	65
			PM	15	11	4	48	65
	NB	Alcosta Blvd to Livorna Rd	AM	16	12	4	48	65
			PM	20	12	8	39	65
<b>MRN-101</b>	SB	Rte 37 to N. San Pedro Rd	AM	24	14	10	15	26
		Greenbrae I/C to Richardson Bay Brdg	AM	4	4	0	55	55
	NB	Richardson Bay Brdg to Greenbrae I/C	PM	9	6	3	27	40
		N. San Pedro Rd to Rte 37	PM	6	6	0	65	65
<b>SCL-85</b>	SB	Rte 101 (Mtn View) to Rte 280	AM	6	5	1	54	65
			PM	13	5	8	26	65
		Rte 280 to Almaden Expwy	AM	11	11	0	65	65
			PM	25	11	14	29	65
		Almaden Expwy to Rte 101 (So. San Jose)	AM	6	5	1	54	65
			PM	7	5	2	49	65
	NB	Rte 101 (So. San Jose) to Almaden Expwy	AM	14	6	8	27	65
			PM	6	6	0	65	65
		Almaden Expwy to Rte 280	AM	25	13	12	30	65
			PM	13	12	1	60	65
		Rte 280 to Rte 101 (Mtn View)	AM	11	5	6	20	65
			PM	6	5	1	54	65

# HOV LANE PEAK HOUR TIME SAVINGS AND AVERAGE SPEEDS

				Travel Time (minutes) Non-HOVL	Travel Time (minutes) HOVL	HOVL Time Saving (minutes)	Avg. Speed (mph) Non-HOVL	Avg. Speed (mph) HOVL	
SCL-101	SB	San Mateo Co. Line to Ellis St	AM	9	5	4	34	65	
			PM	19	5	14	16	65	
		Ellis St to Guadalupe Pkwy	AM	7	6	1	56	65	
			PM	16	7	9	46	65	
		Guadalupe Pkwy to 101/280/680 I/C	AM	6	5	1	54	65	
			PM	21	9	12	14	30	
		101/280/680 I/C to Bernal Rd	AM	8	7	1	57	65	
			PM	11	7	4	41	65	
	Bernal Rd to Cochrane Road	AM	9	9	0	65	65		
		PM	9	9	0	63	65		
	NB	Cochrane Road to Bernal Road	AM	9	9	0	65	65	
			PM	9	9	0	65	65	
		Bernal Rd to 101/280/680 I/C	AM	13	8	5	38	65	
			PM	9	8	1	58	65	
		101/280/680 I/C to Guadalupe Pkwy	AM	22	6	13	14	50	
			PM	5	5	0	65	65	
		Guadalupe Pkwy to Ellis Street	AM	9	6	3	48	65	
			PM	11	6	5	40	65	
		Ellis to San Mateo Co. Line	AM	10	5	5	30	65	
			PM	14	5	9	22	65	
SCL-237		WB	McCarthy Blvd to Mathilda Ave	AM	7	7	0	44	65
				PM	12	7	5	26	65
	EB	Mathilda Ave to Rte 880/237 Jct.	AM	7	6	1	57	65	
			PM	17	12	5	24	33	
SCL-280	SB	Magdalena Ave to Leland Ave	AM	15	10	5	42	65	
			PM	19	10	9	33	65	
	NB	Leland Ave to Magdalena Ave	AM	24	10	14	27	65	
			PM	12	10	2	54	65	
SM-101	SB	Whipple Ave to Santa Clara Co. Line	AM	22	7	15	18	65	
			PM	14	7	7	29	65	
	NB	Santa Clara Co. Line to Whipple Ave	AM	7	6	1	59	65	
			PM	11	6	5	38	65	
SOL-80	EB	Carquinez Bridge Toll Plaza	AM	1	1	0	65	65	
			PM	1	1	0	65	65	
SON-101	SB	Rte 12 to Wilfred Avenue	AM	4	4	0	65	65	
			PM	4	4	0	65	65	
	NB	Wilfred Ave to Rte 12	AM	9	4	5	27	60	
			PM	6	4	2	40	60	
Overall Average Speed							42	61.4	

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# **GENERAL FACILITY INFORMATION**

- **Mainline HOV Lanes**
  - **Toll Bridge HOV Bypass Lanes**
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# MAINLINE HOV LANES

## ALA-80: San Francisco-Oakland Bay Bridge Toll Plaza

OCCUPANCY	Three or more persons per vehicle, motorcycles, 2-seat vehicles with 2 persons, inherently low-emission vehicles (ILEVs) with DMV issued decal.		
WESTBOUND	HOURS:	5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday	
	LIMITS:	Lane 1:	Route 880 left side HOV ramp to metering signals Length = 0.4 mile
		Lane 2:	Route 580 connector to metering signals Length = 1.1 miles
		Lane 21:	Route 880 right side HOV ramp to metering signals Length = 0.6 mile
		Lane 22:	HOV slip ramp to metering signals Length = 0.8 miles
	DATES:	Apr 17, 1970	Opened; Buses only
		Dec 8, 1971	Carpools permitted; min. occ. three persons per vehicle
		Feb 2, 1979	Buses only in lane 17; 6:30-8:30, Mon-Fri-only lane on W. Grand Ave, approached from Maritime on-ramp to toll plaza; temporary measure in response to BART tube closure
		Apr 17, 1979	Bus-only in lane 17 & W. Grand Ave approach made permanent; W. Grand Ave slip ramp designated for buses only; hours of operation changed to 6:00-9:00 AM, Mon-Fri; lane 8 reverted to mixed flow; carpools permitted to use lane 10 during AM peak
		Oct 12, 1981	Opened; lanes 18 & 19; buses only, 24 hours/day, 7 days/week; carpools permitted, 6:00-9:00 AM, Mon-Fri; lane 17 reverted to mixed flow
		Jul 18, 1983	Lanes 8 & 9 reverted to mixed flow; lane 1 converted to HOV; lanes 18/19 merge moved from downstream of toll plaza to downstream of metering signals
		Apr 22, 1986	Mini toll plaza (lane 18, 19, 20) opened; right side HOV lanes designated as lanes 21 & 22
		Sep 7, 1988	Hours of Operation were extended from 6-9 AM to 5-10 AM on September 7, 1988.
		Sep 7, 1988	The HOVL violation fine increased in early 1989.
		Nov 3, 1989	Lane 2 converted to HOV; left HOVL extended upstream to 32nd St on-ramp; AM HOV hours changed to 5:00- 10:00 AM, Mon-Fri
		Mar 1, 1992	Motorcycles permitted
		Oct 1, 1995	Two-seat vehicles with two occupants permitted
		Apr 8, 1997	HOV slip ramp approaching right side of toll plaza opened; buses only, 24 hours/day, 7 days/week; carpools/motorcycles OK, 5:00-10:00 AM, 3:00-6:00 PM, Mon-Fri
		Jul 23, 1997	Route 880 right side HOV ramp opened; buses only, 24 hours/day, 7 days/week; carpools/motorcycles OK, 5:00-10:00 AM; 3:00-6:00 PM, Mon-Fri
		Feb. 2, 1998	PM Hours of operation changed to 3:00-7:00 PM
		May 16, 1998	Route 880 left side HOV ramp opened; buses/carpools/ motorcycles only, 5:00-10:00 AM, 3:00-7:00 PM, Mon-Fri
		Jul 1, 2000	Inherently low-emission vehicles with DMV issued decals permitted.



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## ALA-80: Contra Costa County Line to Powell St

OCCUPANCY	Three or more persons per vehicle, motorcycles, 2 seaters vehicles with 2 persons, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
WESTBOUND	HOURS:	5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	Contra Costa County Line (MP 8.0) to Powell St (MP 3.8) Length = 4.2 miles
	DATES:	Feb. 2, 1998      Opened; Contra Costa County Line to Powell St; HOV flyover opened; hours of operation 5:00 AM-7:00 PM, Monday thru Friday Aug 3, 1998      Hours of operation changed to 5-10 AM, 3-7 PM, Mon-Fri
EASTBOUND	HOURS:	5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	Port of Oakland O.C.(MP 2.7) to Contra Costa County Line (MP 8.0) Length = 5.3 miles
	DATES:	Jul 31, 1998      Opened; Gilman St to Contra Costa County Line Aug 3, 1998      Hours of operation changed to 5-10 AM, 3-7 PM, Mon-Fri Nov 20, 1998      Extended; Powell St to Gilman St. Nov 12, 2003      Extended; Port of Oakland OC. To Powell St.

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## ALA-84: Newark Blvd to Dumbarton Bridge Toll Plaza

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
WESTBOUND	HOURS:	5:00 - 10:00 AM, 3:00 - 6:00 PM, Monday thru Friday
	LIMITS:	Newark Blvd U/C (MP 4.9) to west of Toll Plaza (MP 3.1) Length = 1.8 miles
	DATES:	Oct 6, 1982      Opened with new bridge; 1000-ft long bypass lane at booths Nov 22, 1989      Extended due to Loma Prieta quake; Newark Blvd to University Ave Nov 17, 1990      Shortened; Newark Blvd to west of Toll Plaza Jan 1, 1992      Minimum occupancy reduced from three to two persons per vehicle
NOTE:		HOV lane is located on the left side.

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## ALA-92: Hesperian Blvd to San Mateo Bridge Toll Plaza

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
WESTBOUND	HOURS:	5:00 - 10:00 AM, 3:00 - 6:00 PM, Monday thru Friday
	LIMITS:	Hesperian on-ramp (MP 5.6) to west of Toll Plaza (MP 2.5) Length = 3.0 miles
	DATES:	Oct 23, 1989    Opened; Clawiter Rd on-ramp to east of Toll Plaza Jan 1, 1992    Minimum occupancy reduced from three to two persons per vehicle Jan 15, 1992   Extended; Clawiter Rd on-ramp to west of Toll Plaza Jul 2, 2001    Extended and relocated; Hesperian Blvd. To West of Toll Plaza Jun 3, 2003    Speed changed from 55mph to 65 mph
	NOTE:	HOV lane is now located on the left side.

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## ALA/SCL-680: Route 84 to Route 237 Calaveras Blvd.

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
SOUTHBOUND	HOURS:	5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	Route 84 on-ramp (MP R11.5) to Route 237 Calaveras Blvd. On-ramp (MP M7.6) Length = 14.0 miles
	DATES:	Nov 26, 2002    Opened; Washington Blvd. On-ramp to Route 237 Calaveras Blvd. On-ramp Dec 5, 2002    Extended; Route 84 on-ramp to Route 237 Calaveras Blvd. On-ramp

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## ALA 880: Marina Blvd to Mission Blvd (Rte 262)

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
SOUTHBOUND	HOURS:	5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	Marina Blvd. (MP 22.7) to Mission Blvd. (Rte 262) (MP 2.4) Length = 20.5 miles
	DATES:	Sep 22, 1991    Opened; A-Street to north of Tennyson Nov 6, 1991    Extended; Tennyson to Industrial Pkwy Jun 26, 1992    Extended; Rte 238 to A-Street Nov 18, 1993   Extended; Industrial Pkwy to Whipple Rd Dec 1994       Hours of operation changed from 5-10 AM and 3-6 PM to 5-9 AM, 3-7 PM respectively Mar 17, 1995   Extended; Marina Blvd to Rte 238 Jun 15, 1998   Extended; Whipple Rd. to Alvarado/ Fremont Blvd. Oct 23, 1998   Extended; Alvarado/Fremont Blvd. to Mowry Ave. Dec 11, 1998   Extended; Mowry Ave. to Mission Blvd. (Rte 262)

### ALA-880: 16th Street to SFOBB Toll Plaza

## ALA-880: West Grand Ave. to EB Rte 80 HOV Lane Merge

### CC-4: West of Railroad Ave. to Port Chicago Highway

EASTBOUND      HOURS:    3:00 - 7:00 PM, Monday thru Friday

LIMITS:        Port Chicago Highway (MPR 16.2) to West of Railroad Ave. (MPR22.5)  
Length = 7.0 miles

DATES:        Aug 6, 2001      Opened; Port Chicago Highway to West of Railroad Ave.;  
3-7 PM. Mon-Fri.

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## CC-80 Route 4 to Alameda County Line

OCCUPANCY      Three or more persons per vehicle, motorcycles, 2-seat vehicles with 2 persons,  
inherently low-emission vehicles (ILEVs) with DMV issued decal.

WESTBOUND      HOURS:    5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS:        Route 4 (MP 9.67) to Alameda County Line (MP 0.0)  
Length = 9.7 miles

DATES:        Mar 5, 1997      Opened; Pinole Valley Rd to Cutting Blvd; 5-10 AM, Mon-Fri  
Apr 18, 1997      2-seat vehicles with 2 persons permitted to use HOVL  
May 3, 1997      Extended: Cutting Blvd to Central Ave  
Sep 20, 1997      Extended; Route 4 to Pinole Valley Rd  
Feb 2, 1998      Extended; Central Ave to Alameda County Line;  
Hours of operation changed to 5:00 AM-7:00 PM, Mon-Fri  
Aug 3, 1998      Hours of operation changed to 5-10 AM, 3-7 PM, Mon-Fri

LIMITS:        Alameda County Line (MP 0.0) to West of Route 4 off-ramp (MP 9.9)  
Length = 9.9 miles

DATES:        Feb 12, 1997      Opened; San Pablo Dam Rd to Pinole Valley Rd; 3-7 PM, Mon-Fri  
Feb 13, 1997      Extended; Cutting Blvd to San Pablo Dam Rd  
Apr 18, 1997      2-seat vehicles with 2 persons permitted to use HOVL  
May 3, 1997      Extended; Central Ave to Cutting Blvd  
Aug 30, 1997      Extended; Pinole Valley Rd to Route 4  
Feb 2, 1998      Hours of operation changed to 5:00 AM-7:00 PM, Mon-Fri  
Aug 3, 1998      Hours of operation changed to 5-10 AM, 3-7 PM, Mon-Fri  
Extended; Central Ave to Alameda County Line

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## CC-680: S/O Route 4 to N/O North Main St.

OCCUPANCY      Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs)  
with DMV issued decal.

SOUTHBOUND      HOURS:    6:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS:        0.5 miles south of Route 4 SB on-ramp (MP 20.5) to 0.7 miles north  
of North Main St. off-ramp (MP R16.4)  
Length = 4.1 miles

DATES:        Sep 11, 2004      Opened; S/O Route 4 to N/O North Main St.

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## CC-680: Livorna Rd to Alcosta Blvd.

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
SOUTHBOUND	HOURS:	6:00 - 9:00 AM, 3:00 - 6:00 PM, Monday thru Friday
	LIMITS:	0.5 miles north of Livorna Rd off-ramp (MP R11.9) to 0.6 miles south of Alcosta Blvd on-ramp (MP R21.6) Length = 11.9 miles
	DATES:	Oct 3, 1994      Opened; Stone Valley Rd on-ramp to Alcosta Blvd on-ramp Feb 6, 1995      Extended; Livorna Rd on-ramp to Alcosta Blvd May 5, 1999      Shortened; Livorna Rd on-ramp to north of Alcosta Blvd off-ramp
NORTHBOUND	HOURS:	6:00 - 9:00 AM, 3:00 - 6:00 PM, Monday thru Friday
	LIMITS:	0.4 miles south of Alcosta on-ramp (MP R21.6) to Livorna on-ramp (MP R11.9) Length = 12.9 miles
	DATES:	Oct 3, 1994      Opened; Alcosta Blvd on-ramp to Stone Valley Rd on-ramp Feb 6, 1995      Extended; Alcosta Blvd to Livorna Rd on-ramp

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## MRN-101: Richardson Bay Bridge to Greenbrae I/C

OCCUPANCY	Two or more persons per vehicle, motorcycles permitted, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
SOUTHBOUND	HOURS:	6:30 - 8:30 AM, Monday thru Friday
	LIMITS:	North of Greenbrae ped OC (MP 8.4) to south of Strawberry ped OC (MP 4.7) Length = 3.7 miles
	DATES:	Dec 23, 1974      Opened; buses only Jun 16, 1976      Carpools permitted; min. occ. three persons per vehicle Oct 1, 1988      Minimum occupancy reduced from three to two persons per vehicle Sep 23, 1990      Motorcycles permitted Jul 13, 1998      HOV hours extended to 5:00-9:00 AM Dec 14, 1998      Extended hours cancelled
NORTHBOUND	HOURS:	4:30 - 7:00 PM, Monday thru Friday
	LIMITS:	South of Richardson Bay Bridge (MP 4.0) to north of Corte Madera O/C (MP 7.5) Length = 3.5 miles
	DATES:	Dec 20, 1974      Opened; buses only Jun 15, 1976      Carpools permitted; min. occ. three persons per vehicle Oct 1, 1988      Minimum occupancy reduced from three to two persons per vehicle Sep 23, 1990      Motorcycles permitted Jul 13, 1998      HOV hours extended to 3:00-7:00 PM Dec 14, 1998      Extended hours cancelled

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## MRN-101: North San Pedro Rd to Rte 37

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
SOUTHBOUND	HOURS:	6:30 - 8:30 AM, Monday thru Friday
	LIMITS:	Route 37/S. Novato Blvd (MP 18.9) to north of San Pedro U/C (MP 12.8) Length = 6.1 miles
	DATES:	Jul 24, 1987      Opened; Marinwood to North San Pedro Rd Oct 1, 1988      Minimum occupancy reduced from three to two persons per vehicle Sep 23, 1990      Motorcycles permitted Feb 8, 1991      Extended; Marinwood to Rte 37 Jul 13, 1998      HOV hours extended to 5:00-9:00 AM Dec 14, 1998      Extended hours cancelled
NORTHBOUND	HOURS:	4:30 - 7:00 PM, Monday thru Friday
	LIMITS:	North of San Pedro U/C (MP 12.8) to Route 37/S. Novato Blvd (MP 18.9) Length = 6.1 miles
	DATES:	Aug 12, 1986      Opened; North San Pedro to Marinwood Oct 1, 1988      Minimum occupancy reduced from three to two persons per vehicle Sep 23, 1990      Motorcycles permitted Feb 21, 1991      Extended; Marinwood to Rte 37 Jul 13, 1998      HOV hours extended to 3:00-7:00 PM Dec 14, 1998      Extended hours cancelled

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## SCL-85: Rte 101 (Mountain View) to Rte 101 (So. San Jose)

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
SOUTHBOUND	HOURS:	5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	Rte 101 (MP 23.8) to Bernal Rd (MP 0.5) Length = 23.3 miles
	DATES:	Apr 25, 1990      Opened; Rte 237 to Rte 280 Aug 12, 1994      New section; Almaden Expwy to Bernal Rd Oct 19, 1994      Extended; Rte 280 to Almaden Expwy Nov 13, 1998      Extended; Rte 101 (Mountain View) to Rte 237 Oct 22, 2004      Opened direct HOV Connector from SB 85 to SB 101
NORTHBOUND	HOURS:	5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	Rte 85/101 connector ramp in So. San Jose (MP 0.0) to Rte 101 in Mountain View (MP 23.8) Length = 23.8 miles
	DATES:	Feb 22, 1990      Opened; Rte 280 to Rte 237 Aug 12, 1994      New section; Rte 101 (So. San Jose) to Almaden Expwy Oct 19, 1994      Extended; Almaden Expwy to Rte 280 Nov 6, 1998      Extended; Rte 237 to Rte 101 (Mountain View) Sep 20, 2004      Opened direct HOV Connector from NB 101 to NB 85

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## SCL-101: San Mateo County Line to Cochrane Rd

OCCUPANCY Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.

SOUTHBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: San Mateo County Line (M 52.6) to 0.5 mile north of Cochrane Rd off-ramp (MP 18.7)  
Length = 34.8 miles

DATES: Nov 10, 1986 Opened; Lawrence Expwy to De La Cruz Blvd  
Aug 8, 1988 Extended; Ellis St to Lawrence Expwy  
Oct 10, 1988 Extended; N. Rengstorff Ave to Ellis St  
Dec 12, 1988 Extended; San Mateo Co. Line to N. Rengstorff Ave  
Jun 15, 1990 New section; Rte 101/280/680 I/C to north of Bernal Rd  
Jan 29, 1993 Extended; Rte 880 to Rte 101/280/680 I/C  
Apr 5, 1993 Extended; De La Cruz Blvd to Rte 880  
Mar 19, 2003 Opened; Bernal Road to Cochrane Road

NORTHBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Cochrane Rd on-ramp (MP 17.9) to San Mateo County Line (MP 51.2)  
Length = 34 miles

DATES: Nov 7, 1986 Opened; Guadalupe Pkwy to Great America Pkwy  
Oct 10, 1988 Extended; Great America Pkwy to N. Rengstorff Ave  
Dec 12, 1988 Extended; N. Rengstorff Ave to San Mateo Co. Line  
Jun 7, 1990 New section; Bernal Rd to Rte 101/280/680 I/C  
Feb 1, 1993 Extended; Rte 101/280/680 I/C to Old Oakland Rd  
Apr 5, 1993 Extended; Old Oakland Rd to Guadalupe Pkwy  
Mar 19, 2003 Opened; Cochrane Rd to Bernal Road

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## SCL-237: Rte 880 to Mathilda Ave

OCCUPANCY Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.

WESTBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: McCarthy Rd on-ramp (MP 8.7) to east of Mathilda Ave (MP 4.0)  
Length = 4.7 miles

DATES: Oct 31, 1984 Opened; Rte 880 to Lawrence Expwy; right side HOVL  
Nov/Dec 1991 Extended; Lawrence Expwy to east of Mathilda Ave; right side HOVL  
May 1, 1995 Rte 237 upgraded to fwy; HOVL relocated to left lane;  
hours expanded to include the PM peak (3-7 PM)

EASTBOUND	HOURS:	5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	Mathilda Ave (MP 3.4) to Jct Rte 880/237 Length = 6.7 miles
	DATES:	Oct 31, 1984      Opened; Lawrence Expwy to Rte 880; right side HOVL Nov/Dec 1991    Extended; Mathilda Ave to Rte 880 May 1, 1995      Rte 237 upgraded to fwy; HOVL relocated to left lane; hours expanded to include the AM peak (5-9 AM) Oct 2, 1996      Shortened; Mathilda Ave to 1.1 miles west of Rte 880

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## SCL-280: Magdalena Ave to Leland Ave

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
SOUTHBOUND	HOURS:	5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	Magdalena Ave on-ramp (MP 14.0) to north of Meridian Ave (MP R4.2) Length = 11.2 miles
	DATES:	Dec 1, 1990      Opened; Magdalena Ave to north of Meridian Ave
NORTHBOUND	HOURS:	5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	South of Leland Ave (MP L4.7) to Magdalena Ave off-ramp (MP 14.0) Length = 10.7 miles
	DATES:	Nov 21, 1990    Opened; south of Leland Ave to Magdalena Ave

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## SM-101: Whipple Ave to Santa Clara County Line

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
SOUTHBOUND	HOURS:	5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	Whipple Ave (MP 6.6) to Santa Clara Co. Line (MP 0.0) Length = 6.6 miles
	DATES:	Jul 18, 1991      Opened
NORTHBOUND	HOURS:	5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday
	LIMITS:	Santa Clara Co. Line (MP 0.0) to Whipple Ave (MP 6.6) Length = 6.6 miles
	DATES:	Jul 16, 1991      Opened



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## SOL-80: Carquinez Bridge Toll Plaza

OCCUPANCY	Three or more persons per vehicle, motorcycles, 2-seat vehicles with 2 persons, inherently low-emission vehicles (ILEVs) with DMV issued decals.		
EASTBOUND	HOURS:	5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday	
	LIMITS:	0.1 miles West of Toll Plaza (MP 0.5) to east of Toll Plaza (MP 0.6) Length = 0.1 mile	
	DATES:	Jul 1, 1991	Reduced 10c toll tickets for HOVs (with purchase of 50-ticket book)
		Oct 1, 1995	Toll-free passage in designated booth only; Two-seat vehicles with two occupants permitted
		Jul 30, 1997	Opened; West of Toll Plaza to east of Toll Plaza
	NOTE:	HOV lane is located in toll booth #6	

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## SON-101: Rte 12 to Wilfred Avenue

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.		
SOUTHBOUND	HOURS:	7:00 - 9:00 AM, 3:00 - 6:30 PM, Monday thru Friday	
	LIMITS:	Route 12 to North of Wilfred Avenue Length = 4 miles	
	DATES:	Nov 4, 2002	Opened.
		Dec 11, 2003	Hours of Operation changed to 7-9 AM, 3-6:30 PM, MON - FRI
NORTHBOUND	HOURS:	7:00 - 9:00 AM, 3:00 - 6:30 PM, Monday thru Friday	
	LIMITS:	Wilfred Avenue to South of Route 12 Length = 4 miles	
	DATES:	Nov 4, 2002	Opened.
		Dec 11, 2003	Hours of Operation changed to 7-9 AM, 3-6:30 PM, MON - FRI

# TOLL BRIDGE HOV BYPASS LANES

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## Benicia-Martinez, Antioch Bridges

OCCUPANCY	Three or more persons per vehicle, motorcycles, two-seat vehicles with two occupants, inherently low-emission vehicles (ILEVs) with DMV issued decals.	
HOURS	5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday	
TOLL-FREE BOOTH	Benicia	#4, #5
	Antioch	#2, #3
DATES	Jul 1, 1991	Reduced 10¢ toll tickets for HOVs (with purchase of 50-ticket book)
	Oct 1, 1995	Toll-free passage in designated booth only; Two-seat vehicles with two occupants permitted

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## Richmond-San Rafael Bridge

OCCUPANCY	Three or more persons per vehicle, motorcycles, two-seat vehicles with two occupants, inherently low-emission vehicles (ILEVs) with DMV issued decals.	
HOURS	5:00 - 10:00 AM, 3:00 - 6:00 PM, Monday thru Friday	
TOLL-FREE BOOTH	#4	
DATES	Oct. 23, 1989	Toll-free passage in designated booth only;
	Oct 1, 1995	Two-seat vehicles with two occupants permitted

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## San Mateo-Hayward, Dumbarton Bridges

OCCUPANCY	Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs) with DMV issued decal.	
HOURS	5:00 - 10:00 AM, 3:00 - 6:00 PM, Monday thru Friday	
TOLL-FREE BOOTH	San Mateo	#1
	Dumbarton	Left side bypass lane
DATES	See information in Mainline HOV Lane section	

# TOLL BRIDGE HOV BYPASS LANES

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## San Francisco-Oakland Bay Bridge

OCCUPANCY	Three or more persons per vehicle, motorcycles, two-seat vehicles with two occupants, inherently low-emissions vehicles (ILEVs) with DMV issued decal.
HOURS	5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday
TOLL-FREE BOOTHS	#1, #2, Lanes 21 & 22
DATES	See information in Ala-80 Mainline HOV Lane section

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## Carquinez Bridge

OCCUPANCY	Three or more persons per vehicle, motorcycles, two-seat vehicles with two occupants, inherently low-emissions vehicles (ILEVs) with DMV issued decal.
HOURS	5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday
TOLL-FREE BOOTHS	# 6
DATES	See information in Sol-80 Mainline HOV lane section

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# **MAINLINE HOV LANES**

## **VOLUME/PERSON DATA and VIOLATION HISTORY**

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# ALAMEDA-80

San Francisco-Oakland Bay Bridge Toll Plaza

## Westbound - A.M.

Typical data for 2004 <sup>(6)</sup>

VEHICLES	PEAK PERIOD <sup>(5)</sup> 5:00 - 10:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lanes	Mixed Flow Lanes	HOV Lanes	Mixed Flow Lanes
Motorcycles	445	—	103	—
Buses <sup>(4)</sup>	231	—	67	—
Carpools <sup>(1)</sup>	6626	—	2479	—
2 - seaters <sup>(2)</sup>	2337	—	652	—
Vanpools	181	—	40	—
Violators	1097	—	287	—
<b>TOTAL</b>	10917	32680 <sup>(7)</sup>	3628	5778

PERSONS	PEAK PERIOD <sup>(5)</sup> 5:00 - 10:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lanes	Mixed Flow Lanes	HOV Lanes	Mixed Flow Lanes
Motorcycles	445	—	103	—
Buses <sup>(4)</sup>	8085	—	2345	—
Carpools <sup>(1)</sup>	20541	—	7685	—
2 - seaters <sup>(2)</sup>	4674	—	1304	—
Vanpools	1810	—	400	—
Violators	1572	—	425	—
<b>TOTAL</b>	37127	37582 <sup>(7)</sup>	12262	6645

RATES	PEAK PERIOD <sup>(5)</sup> 5:00 - 10:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lanes	Mixed Flow Lanes	HOV Lanes	Mixed Flow Lanes
HOV Lane Occupancy Rate	3.4 persons/veh	—	3.4 persons/veh	—
Mixed Flow Occupancy Rate <sup>(7)</sup>	1.1 persons/veh	—	1.1 persons/veh	—
Violation rate <sup>(3)</sup> (HOV Lane)	10.0 %	—	7.9 %	—

- NOTES:** (1) 3 or more persons per vehicle.  
 (2) 2 - seater vehicles with 2 persons.  
 (3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$   
 (4) Assumed AM bus occupancy = 35 persons/vehicle.  
 (5) HOV lanes in operation from 5:00 to 10:00 AM.  
 (6) Observations conducted 11/3/04 at the SFOBB Toll Plaza.  
 (7) Data from Toll Plaza Vehicle Registration Report.

# ALAMEDA-80

San Francisco-Oakland Bay Bridge Toll Plaza

## Westbound - P.M.

Typical data for 2004 <sup>(6)</sup>

VEHICLES	PEAK PERIOD <sup>(5)</sup> 3:00 - 7:00 PM		PEAK HOUR 6:00 - 7:00 P.M.	
	HOV Lanes	Mixed Flow Lanes	HOV Lanes	Mixed Flow Lanes
Motorcycles	229	—	74	—
Buses <sup>(4)</sup>	269	—	66	—
Carpools <sup>(1)</sup>	1940	—	567	—
2 - seaters <sup>(2)</sup>	508	—	144	—
Vanpools	45	—	9	—
Violators	299	—	91	—
<b>TOTAL</b>	<b>3290</b>	<b>28356</b> <sup>(7)</sup>	<b>951</b>	<b>7427</b>

PERSONS	PEAK PERIOD <sup>(5)</sup> 3:00 - 7:00 PM		PEAK HOUR 6:00 - 7:00 P.M.	
	HOV Lanes	Mixed Flow Lanes	HOV Lanes	Mixed Flow Lanes
Motorcycles	229	—	74	—
Buses <sup>(4)</sup>	4304	—	1056	—
Carpools <sup>(1)</sup>	6014	—	1758	—
2 - seaters <sup>(2)</sup>	1016	—	288	—
Vanpools	360	—	72	—
Violators	447	—	127	—
<b>TOTAL</b>	<b>12370</b>	<b>34027</b> <sup>(7)</sup>	<b>3375</b>	<b>8912</b>

RATES	PEAK PERIOD <sup>(5)</sup> 3:00 - 7:00 PM		PEAK HOUR 6:00 - 7:00 P.M.	
	HOV Lanes	Mixed Flow Lanes	HOV Lanes	Mixed Flow Lanes
HOV Lane Occupancy Rate	3.8 persons/veh	—	3.5 persons/veh	—
Mixed Flow Occupancy Rate <sup>(7)</sup>	1.1 persons/veh	—	1.1 persons/veh	—
Violation rate (HOV Lane) <sup>(3)</sup>	9.1 %	—	9.6 %	—

- NOTES:** (1) 3 or more persons per vehicle.  
(2) 2 - seater vehicles with 2 persons.  
(3)  $\text{Violation rate} = \frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$   
(4) Assumed PM bus occupancy = 16 persons/vehicle.  
(5) HOV lanes in operation from 3:00 to 7:00 P.M.  
(6) Observations conducted 10/28/04 at the SFOBB Toll Plaza.  
(7) Data from Toll Plaza Hourly Vehicle Registration Report.

# ALAMEDA-80

San Francisco-Oakland Bay Bridge

## Violation History

Westbound

	DATE	TOTAL HOVL VOLUME	VIOLATION RATE	By Lane		By Time				
				Lanes 1 & 2	Lanes 21&22	5 - 6 AM	6 - 7 AM	7 - 8 AM	8 - 9 AM	9 - 10 AM
<b>A.M.</b>	Wed Nov 3, 2004	10917	<b>10.0%</b>	8.2%	11.7%	21.4%	12.5%	7.9%	6.3%	9.0%
<b>PEAK</b>	Wed May 28, 2003	10803	<b>8.2%</b>	7.4%	9.0%	15.5%	8.4%	7.0%	6.1%	9.6%
	Thu May 9, 2002	11481	<b>9.5%</b>	4.9%	13.8%	22.4%	12.0%	7.5%	3.8%	10.5%
	Wed May 23, 2001	13100	<b>10.0%</b>	7.2%	12.8%	22.3%	12.2%	5.8%	6.9%	10.4%
	Thu Nov 9, 2000	12991	<b>14.7%</b>	8.9%	19.9%	37.8%	16.9%	10.4%	6.4%	14.3%
	Thu Oct 14, 1999	11644	<b>19.5%</b>	9.8%	29.7%	60.1%	32.6%	7.7%	6.9%	11.5%
	Tue Apr 21, 1998	9696	<b>10.6%</b>	7.6%	12.5%	14.2%	22.7%	6.4%	4.1%	9.2%
	Wed Jun 11, 1997	7655	<b>10.9%</b>	1.0%	12.4%	20.9%	10.6%	8.1%	6.0%	21.5%
	Tue Apr 23, 1996	7258	<b>10.6%</b>	10.9%	9.6%	17.1%	12.5%	8.2%	7.5%	16.9%
	Tue Oct 17, 1995	6985	<b>7.3%</b>	8.1%	5.5%	7.6%	2.6%	8.0%	8.1%	9.7%
						3 - 4 PM	4 - 5 PM	5 - 6 PM	6 - 7 PM	
<b>P.M.</b>	Thu Oct 28, 2004	3290	<b>9.1%</b>	10.6%	7.0%	10.9%	7.9%	8.1%	9.6%	
<b>PEAK</b>	Tue May 27, 2003	3891	<b>14.7%</b>	17.2%	11.8%	24.4%	11.7%	9.3%	15.7%	
	Wed Sep 18, 2002	3327	<b>11.7%</b>	12.7%	15.0%	16.5%	11.6%	10.9%	15.8%	
	Wed Oct 3, 2001	3602	<b>9.8%</b>	10.6%	8.8%	12.6%	7.6%	9.3%	10.1%	
	Thu Oct 19, 2000	3673	<b>25.6%</b>	17.0%	33.3%	32.0%	24.4%	21.1%	25.3%	
	Thu Oct 14, 1999	3193	<b>10.6%</b>	12.0%	9.0%	15.6%	10.4%	7.6%	0.097	
	Tue Oct 20, 1998	2335	<b>19.1%</b>	15.6%	21.6%	26.6%	24.9%	10.1%	0.17	
	Wed Jun 11, 1997	1905	<b>17.0%</b>	19.2%	12.5%	23.0%	14.3%	13.7%	—	
	Tue Apr 23, 1996	1737	<b>14.7%</b>	17.2%	7.7%	16.1%	12.5%	15.7%	—	
	Tue Oct 17, 1995	1660	<b>15.8%</b>	15.5%	16.4%	18.4%	14.0%	15.3%	—	

**NOTES:** (a) Two-seater vehicles with 2 persons allowed in HOVL effective October 1, 1995.  
 (b) Hours of operation were extended from 3-6 PM to 3-7 PM on February 2, 1998.  
 (c) Hours of operation from 5:00 to 10:00 AM and 3:00 to 7:00 PM.

# ALAMEDA-80

## HOV FLYOVER RAMP

Powell Street to SFOBB

## Westbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 7:00 - 10:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	SOV Lane	HOV Lane	SOV Lane
Motorcycles	92	—	23	—
Buses	18	—	6	—
Carpool <sup>(1)</sup>	1841	—	846	—
2 - seaters <sup>(2)</sup>	479	—	209	—
Vanpools	27	—	14	—
Violators	480	—	247	—
<b>TOTAL</b>	<b>2937</b>	<b>N/A</b>	<b>1345</b>	<b>N/A</b>

PERSONS	HOV Lane		HOV Lane	
	HOV Lane	SOV Lane	HOV Lane	SOV Lane
Motorcycles	92	—	23	—
Buses	630	—	210	—
Carpool <sup>(1)</sup>	5707	—	2623	—
2 - seaters <sup>(2)</sup>	958	—	418	—
Vanpools	270	—	140	—
Violators	720	—	372	—
<b>TOTAL</b>	<b>8377</b>	<b>N/A</b>	<b>3786</b>	<b>N/A</b>

RATES	HOV Lane		HOV Lane	
	HOV Lane	SOV Lane	HOV Lane	SOV Lane
HOV Lane occupancy rate	2.9 persons/veh		2.8 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	16.3 %		18.4 %	

**NOTES:** (1) 3 or more persons per vehicle.

(2) 2 - seater vehicles with 2 persons.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 5:00 to 10:00 AM.

(5) Observations conducted 12/14/04 at the downstream touchdown of the flyover



# ALAMEDA-80

## HOV FLYOVER RAMP

Powell Street to SFOBB

## Westbound - P.M.

Typical data for 2004 <sup>(5)</sup>

	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	3:00 - 6:00 PM		3:00 - 4:00 PM	
VEHICLES	HOV Lane	SOV Lane	HOV Lane	SOV Lane
Motorcycles	17	—	7	—
Buses	61	—	17	—
Carpool <sup>(1)</sup>	546	—	171	—
2 - seaters <sup>(2)</sup>	147	—	55	—
Vanpools	15	—	7	—
Violators	167	—	83	—
<b>TOTAL</b>	<b>953</b>	<b>N/A</b>	<b>340</b>	<b>N/A</b>
PERSONS	HOV Lane	SOV Lane	HOV Lane	SOV Lane
Motorcycles	17	—	7	—
Buses	976	—	272	—
Carpool <sup>(1)</sup>	1693	—	530	—
2 - seaters <sup>(2)</sup>	294	—	110	—
Vanpools	120	—	56	—
Violators	215	—	107	—
<b>TOTAL</b>	<b>3315</b>	<b>N/A</b>	<b>1082</b>	<b>N/A</b>
RATES				
HOV Lane occupancy rate	3.5 persons/veh		3.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	17.5 %		24.4 %	

**NOTES:** (1) 3 or more persons per vehicle.

(2) 2 - seater vehicles with 2 persons.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 3:00 to 7:00 PM.

(5) Observations conducted 11/3/04 at the downstream touchdown of the flyover.

# ALAMEDA-80

## HOV FLYOVER RAMP

Powell Street to SFOBB

## Violation History

### Westbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Tue Dec 14, 2004	6:00 - 10:00 AM	2937	<b>16.3%</b>
	Wed Nov 5, 2003	6:00 - 10:00 AM	4286	<b>13.9%</b>
	Wed May 29, 2002	6:00 - 10:00 AM	4644	<b>2.9%</b>
	Wed Mar 28, 2001	5:00 - 10:00 AM	5108	<b>18.6%</b>
	Wed May 17, 2000	5:00 - 10:00 AM	5274	<b>16.5%</b>
	Wed Apr 21, 1999	7:00 - 10:00 AM	3900	<b>5.6%</b>
	Tue Oct 20, 1998	5:00 - 10:00 AM	4575	<b>20.4%</b>
<b>P.M. PEAK</b>	Wed Nov 3, 2004	3:00 - 6:00 PM	953	<b>17.5%</b>
	Tue Nov 4, 2003	3:00 - 6:00 PM	839	<b>26.8%</b>
	Tue Sep 17, 2002	3:00 - 7:00 PM	1123	<b>20.4%</b>
	Wed Oct 3, 2001	3:00 - 7:00 PM	1045	<b>26.1%</b>
	Tue Dec 12, 2000	3:00 - 5:00 PM	490	<b>16.1%</b>
	Wed Feb 3, 1999	3:00 - 7:00 PM	946	<b>30.7%</b>
	Wed Oct 7, 1998	3:00 - 7:00 PM	1055	<b>22.7%</b>

**NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM  
(b) Evening period of operation from 3:00 to 7:00 PM.

# ALAMEDA-80

Contra Costa County Line to Powell Street

## Westbound - A.M.

Typical data for 2004 <sup>(5)</sup>

	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	7:00 - 10:00 AM		7:00 - 8:00 AM	
VEHICLES	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	153	27	44	13
Buses	39	17	13	13
Carpools <sup>(1)</sup>	3196	420	1322	204
Vanpools	51	11	23	8
Single Occ. <sup>(2)</sup>	—	19873	—	7118
Violators	295	—	79	—
<b>TOTAL</b>	<b>3734</b>	<b>20348</b>	<b>1481</b>	<b>7356</b>
PERSONS	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	153	27	44	13
Buses	1365	595	455	455
Carpools <sup>(1)</sup>	9292	1147	3842	565
Vanpools	510	110	230	80
Single Occ. <sup>(2)</sup>	—	21621	—	7811
Violators	355	—	104	—
<b>TOTAL</b>	<b>11675</b>	<b>23500</b>	<b>4675</b>	<b>8924</b>
RATES				
HOV Lane occupancy rate	3.1 persons/veh		3.2 persons/veh	
Mixed Flow occupancy rate	1.2 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.5 persons/veh		1.5 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	7.9 %		5.3 %	

**NOTES:** (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 5:00 to 10:00 A.M.

(5) Observations conducted 11/17/04 at Ashby Avenue Interchange.

# ALAMEDA-80

Powell Street to Contra Costa County Line

## Eastbound - P.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 5:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	95	18	47	4
Buses	22	11	13	3
Carpools <sup>(1)</sup>	1377	345	864	154
Vanpools	72	5	44	0
1 and 2 Occ. <sup>(2)</sup>	—	13846	—	6769
Violators	429	—	256	—
<b>TOTAL</b>	1995	14225	1224	6930

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 5:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	95	18	47	4
Buses	770	385	455	105
Carpools <sup>(1)</sup>	3676	870	2317	388
Vanpools	720	50	440	0
1 and 2 Occ. <sup>(2)</sup>	—	14960	—	7264
Violators	587	—	357	—
<b>TOTAL</b>	5848	16283	3616	7761

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 5:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.9 persons/veh		3.0 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.4 persons/veh		1.4 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	21.5 %		20.9 %	

**NOTES:** (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 11/17/04 at Ashby Avenue Interchange.

# ALAMEDA-80

Contra Costa County Line to Powell Street

## Violation History

Westbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Wed Nov 17, 2004	7:00 - 10:00 AM	3734	<b>7.9%</b>
	Tue Jun 10, 2003	6:00 - 10:00 AM	5181	<b>4.4%</b>
	Wed May 8, 2002	6:00 - 10:00 AM	5414	<b>8.7%</b>
	Wed May 16, 2001	6:00 - 10:00 AM	5289	<b>13.8%</b>
	Thu Oct 5, 2000	7:00 - 10:00 AM	3184	<b>18.5%</b>
	Thu Apr 15, 1999	7:00 - 10:00 AM	3156	<b>11.0%</b>
	Thu Oct 8, 1998	7:00 - 10:00 AM	3019	<b>8.8%</b>
<b>P.M. PEAK</b>	Year 2004	-	-	-
	Year 2003	-	-	-
	Thu May 9, 2002	3:00 - 7:00 PM	3102	<b>18.9%</b>
	Thu May 10, 2001	3:00 - 7:00 PM	1936	<b>24.4%</b>
	Thu Jun 1, 2000	3:00 - 7:00 PM	2593	<b>25.9%</b>
	Thu Apr 15, 1999	3:00 - 7:00 PM	2710	<b>21.4%</b>
	Thu Oct 8, 1998	3:00 - 7:00 PM	1943	<b>20.5%</b>

**NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2004 for off-peak directions.

# ALAMEDA-80

Powell Street to Contra Costa County Line

## Violation History

Eastbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Year 2004	-	-	-
	Year 2003	-	-	-
	Wed Jun 5, 2002	6:00 - 10:00 PM	677	17.6%
	Wed May 30, 2001	6:00 - 10:00 PM	606	21.5%
	Tue Dec 19, 2000	7:00 - 10:00 PM	221	7.7%
	Tue Apr 20, 1999	7:00 - 10:00 PM	531	20.9%
	Thu Dec 17, 1998	7:00 - 10:00 PM	311	16.7%
<b>P.M. PEAK</b>	Wed Nov 17, 2004	3:00 - 5:00 PM	1995	21.5%
	Thu May 29, 2003	3:00 - 7:00 PM	4225	9.3%
	Thu May 16, 2002	3:00 - 7:00 PM	4535	2.7%
	Thu Sep 27, 2001	3:00 - 7:00 PM	4655	6.5%
	Thu Sep 14, 2000	3:00 - 7:00 PM	4415	3.4%
	Wed Oct 20, 1999	3:00 - 7:00 PM	4287	1.3%
	Tue Dec 15, 1998	3:00 - 5:00 PM	1415	7.1%

**NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM  
(b) Evening period of operation from 3:00 to 7:00 PM  
(c) Data was not collected in 2004 for off-peak direction

# ALAMEDA-84

Newark Boulevard to Dumbarton Bridge Toll Plaza

## Westbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	81	0	42	0
Buses	22	0	9	0
Carpools <sup>(1)</sup>	2364	64	1126	42
Vanpools	14	1	1	1
Single Occ. <sup>(2)</sup>	—	6968	—	2635
Violators	14	—	3	—
<b>TOTAL</b>	<b>2495</b>	<b>7033</b>	<b>1181</b>	<b>2678</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	81	0	42	0
Buses	770	0	315	0
Carpools <sup>(1)</sup>	4896	136	2362	85
Vanpools	140	10	10	10
Single Occ. <sup>(2)</sup>	—	6968	—	2635
Violators	14	—	3	—
<b>TOTAL</b>	<b>5901</b>	<b>7114</b>	<b>2732</b>	<b>2730</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.4 persons/veh		2.3 persons/veh	
Mixed Flow occupancy rate	1.0 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.4 persons/veh		1.4 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.6 %		0.3 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 5:00 to 10:00 A.M.

(5) Observations conducted 10/14/04 at the Dumbarton Bridge Toll Plaza.

# ALAMEDA-84

Newark Boulevard to Dumbarton Bridge Toll Plaza

## Violation History

Westbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu Oct 14, 2004	6:00 - 9:00 AM	2495	0.6%
	Thu Jun 5, 2003	6:00 - 9:00 AM	2496	0.9%
	Tue May 14, 2002	6:00 - 9:00 AM	3044	3.5%
	Tue Apr 10, 2001	6:00 - 10:00 AM	4480	3.1%
	Thu Oct 19, 2000	6:00 - 9:00 AM	4106	3.5%
	Tue Mar 16, 1999	6:00 - 9:00 AM	3906	5.7%
	Thu Apr 2, 1998	6:00 - 9:00 AM	3601	0.4%
	Tue Apr 29, 1997	6:00 - 9:00 AM	2900	16.9%
	Tue May 14, 1996	6:00 - 10:00 AM	3095	15.0%
	Thu Mar 30, 1995	6:00 - 9:00 AM	2248	13.0%
	Wed Sep 28, 1994	6:15 - 9:00 AM	2207	2.9%
<b>P.M. PEAK</b>	Year 2004	-	-	-
	Thu May 8, 2003	3:00 - 6:00 PM	995	1.1%
	Wed Jun 12, 2002	3:00 - 6:00 PM	959	1.8%
	Tue Mar 20, 2001	3:00 - 6:00 PM	919	2.2%
	Thu Oct 19, 2000	3:00 - 6:00 PM	849	3.1%
	Wed Sep 22, 1999	3:00 - 6:00 PM	949	2.0%
	Wed Apr 15, 1998	3:00 - 6:00 PM	981	1.6%
	Thu Oct 2, 1997	3:00 - 6:00 PM	819	6.6%
	Tue May 14, 1996	3:00 - 6:00 PM	605	2.8%
	Thu Mar 30, 1995	3:00 - 6:00 PM	709	3.8%
	Tue Sep 27, 1994	3:00 - 6:00 PM	701	7.8%
	Thu May 27, 1993	3:00 - 6:00 PM	604	6.8%

**NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM.  
(b) Evening period of operation from 3:00 to 6:00 PM.  
(c) Data was not collected in 2004 for off-peak direction



# ALAMEDA-92

Hesperian Boulevard to San Mateo Bridge Toll Plaza

## Westbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	53	8	19	2
Buses	11	3	4	0
Carpools <sup>(1)</sup>	2088	105	912	64
Vanpools	14	0	7	0
Single Occ. <sup>(2)</sup>	—	10468	—	3741
Violators	52	—	16	—
<b>TOTAL</b>	<b>2218</b>	<b>10584</b>	<b>958</b>	<b>3807</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	53	8	19	2
Buses	385	105	140	0
Carpools <sup>(1)</sup>	4429	234	1997	142
Vanpools	140	0	70	0
Single Occ. <sup>(2)</sup>	—	10468	—	3741
Violators	52	—	16	—
<b>TOTAL</b>	<b>5059</b>	<b>10815</b>	<b>2242</b>	<b>3885</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.3 persons/veh		2.3 persons/veh	
Mixed Flow occupancy rate	1.0 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	2.3 %		1.7 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 5:00 to 10:00 A.M.

(5) Observations conducted 10/13/04 at the San Mateo Bridge Toll Plaza.

# ALAMEDA-92

Hesperian Blvd. to West of San Mateo - Hayward Bridge Toll Plaza

## Violation History

Westbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Wed Oct 13, 2004	6:00 - 9:00 AM	2218	2.3%
	Thu May 29, 2003	6:00 - 9:00 AM	2449	1.3%
	Tue Apr 30, 2002	6:00 - 9:00 AM	1834	3.9%
	Thu Sep 20, 2001	6:00 - 9:00 AM	2075	8.1%
	Tue Oct 24, 2000	6:00 - 9:00 AM	2480	8.2%
	Wed Mar 17, 1999	6:00 - 9:00 AM	2534	9.4%
	Tue Mar 17, 1998	6:00 - 9:00 AM	2255	8.2%
	Tue Oct 7, 1997	6:00 - 9:00 AM	2111	14.9%
	Tue Apr 30, 1996	6:00 - 10:00 AM	1899	11.2%
	Tue Apr 4, 1995	6:00 - 9:00 AM	1344	21.1%
	Wed Oct 5, 1994	7:00 - 9:00 AM	982	9.1%
<b>P.M. PEAK</b>	Year 2004	-	-	-
	Tue Jun 11, 2002	3:00 - 6:00 PM	1275	4.4%
	Wed Oct 3, 2001	3:00 - 6:00 PM	1177	5.4%
	Thu Apr 13, 2000	3:00 - 6:00 PM	1243	1.4%
	Thu Mar 4, 1999	3:00 - 6:00 PM	1128	3.2%
	Thu Mar 26, 1998	3:00 - 6:00 PM	1210	3.8%
	Wed Oct 8, 1997	3:00 - 6:00 PM	1138	6.8%
	Tue Apr 30, 1996	3:00 - 6:00 PM	973	7.9%
	Tue Apr 4, 1995	3:00 - 6:00 PM	944	10.3%
	Wed Oct 5, 1994	3:00 - 6:00 PM	1003	14.1%
	Wed Apr 28, 1993	3:00 - 6:00 PM	1020	8.0%

**NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM.  
(b) Evening period of operation from 3:00 to 6:00 PM.  
(c) Data was not collected in 2004 for off-peak direction

# ALAMEDA-680

Route 84 to Route 237 Calaveras Blvd.

# Southbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	38	1	15	1
Buses	2	6	0	3
Carpools <sup>(1)</sup>	1735	167	543	101
Vanpools	2	21	1	11
Single Occ. <sup>(2)</sup>	—	15676	—	5742
Violators	193	—	54	—
<b>TOTAL</b>	<b>1970</b>	<b>15871</b>	<b>613</b>	<b>5858</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	38	1	15	1
Buses	70	210	0	105
Carpools <sup>(1)</sup>	3516	358	1110	219
Vanpools	20	210	10	110
Single Occ. <sup>(2)</sup>	—	15676	—	5742
Violators	193	—	54	—
<b>TOTAL</b>	<b>3837</b>	<b>16455</b>	<b>1189</b>	<b>6177</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	1.9 persons/veh		1.9 persons/veh	
Mixed Flow occupancy rate	1.0 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.1 persons/veh		1.1 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	9.8 %		8.8 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Mixed flow lanes only.

(3)  $\text{Violation rate} = \frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 12/02/04 at Vargas Rd. I/C.

# ALAMEDA - 680

Route 84 to Route 237 Calaveras Blvd.

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu Dec 2, 2004	6:00 - 9:00 AM	1970	<b>9.8%</b>
	Thu Oct 9, 2003	6:00 - 9:00 AM	2138	<b>0.2%</b>
	Thu Dec 5, 2002	6:00 - 9:00 AM	1098	<b>4.4%</b>
<b>P.M. PEAK</b>	Year 2004	-	-	-
	Tue Jun 3, 2003	3:00 - 6:00 PM	1149	<b>4.4%</b>

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2004 for off-peak direction

# ALAMEDA-880

Marina Boulevard to Whipple Road

## Southbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	6:00 - 9:00 AM		7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	61	10	27	2
Buses	11	32	2	8
Carpools <sup>(1)</sup>	2506	400	1013	157
Vanpools	48	9	16	1
Single Occ. <sup>(2)</sup>	—	13407	—	4550
Violators	97	—	32	—
<b>TOTAL</b>	<b>2723</b>	<b>13858</b>	<b>1090</b>	<b>4718</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	61	10	27	2
Buses	385	1120	70	280
Carpools <sup>(1)</sup>	5156	828	2096	324
Vanpools	480	90	160	10
Single Occ. <sup>(2)</sup>	—	13407	—	4550
Violators	97	—	32	—
<b>TOTAL</b>	<b>6179</b>	<b>15455</b>	<b>2385</b>	<b>5166</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.3 persons/veh		2.2 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	3.6 %		2.9 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 11/03/04 at Tennyson Road I/C.

# ALAMEDA-880

Marina Boulevard to Whipple Road

## Southbound - P.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 3:00 - 4:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	43	3	18	0
Buses	3	12	1	6
Carpools <sup>(1)</sup>	2880	862	876	466
Vanpools	32	45	15	21
Single Occ. <sup>(2)</sup>	—	13649	—	4521
Violators	78	—	43	—
<b>TOTAL</b>	<b>3036</b>	<b>14571</b>	<b>953</b>	<b>5014</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	43	3	18	0
Buses	105	420	35	210
Carpools <sup>(1)</sup>	5958	1863	1847	1001
Vanpools	320	450	150	210
Single Occ. <sup>(2)</sup>	—	13649	—	4521
Violators	78	—	43	—
<b>TOTAL</b>	<b>6504</b>	<b>16385</b>	<b>2093</b>	<b>5942</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.2 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	2.6 %		4.5 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 12/01/04 at Tennyson Road I/C.

# ALAMEDA-880

Whipple Road to South of Route 238

## Northbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	48	1	23	1
Buses	28	2	9	1
Carpools <sup>(1)</sup>	2673	258	1048	101
Vanpools	48	0	23	0
Single Occ. <sup>(2)</sup>	—	12739	—	5187
Violators	157	—	58	—
<b>TOTAL</b>	<b>2954</b>	<b>13000</b>	<b>1161</b>	<b>5290</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	48	1	23	1
Buses	980	70	315	35
Carpools <sup>(1)</sup>	5578	573	2206	230
Vanpools	480	0	230	0
Single Occ. <sup>(2)</sup>	—	12739	—	5187
Violators	157	—	58	—
<b>TOTAL</b>	<b>7243</b>	<b>13383</b>	<b>2832</b>	<b>5453</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.5 persons/veh		2.4 persons/veh	
Mixed Flow occupancy rate	1.0 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	5.3 %		5.0 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Mixed flow lanes only.

(3)  $\text{Violation rate} = \frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 11/02/04 at Tennyson Road I/C.

# ALAMEDA-880

Whipple Road to South of Route 238

## Northbound - P.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	36	14	14	10
Buses	34	12	17	5
Carpools <sup>(1)</sup>	3275	479	1131	184
Vanpools	21	12	9	3
Single Occ. <sup>(2)</sup>	—	13776	—	4627
Violators	56	—	19	—
<b>TOTAL</b>	<b>3422</b>	<b>14293</b>	<b>1190</b>	<b>4829</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	36	14	14	10
Buses	1190	420	595	175
Carpools <sup>(1)</sup>	6817	1020	2350	392
Vanpools	210	120	90	30
Single Occ. <sup>(2)</sup>	—	13776	—	4627
Violators	56	—	19	—
<b>TOTAL</b>	<b>8309</b>	<b>15350</b>	<b>3068</b>	<b>5234</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.4 persons/veh		2.6 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.4 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.6 %		1.6 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Mixed flow lanes only.

(3)  $\text{Violation rate} = \frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 11/30/04 at Tennyson Road I/C.



# ALAMEDA-880

Marina Boulevard to Whipple Road

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Wed Nov 3, 2004	6:00 - 9:00 AM	2723	3.6%
	Tue Oct 7, 2003	6:00 - 9:00 AM	3049	3.7%
	Tue Jun 11, 2002	6:00 - 9:00 AM	3638	7.5%
	Wed Mar 21, 2001	6:00 - 9:00 AM	3971	5.2%
	Tue May 9, 2000	6:00 - 9:00 AM	3661	4.6%
	Thu Mar 4, 1999	6:00 - 9:00 AM	3012	5.7%
	Tue Oct 27, 1998	6:00 - 9:00 AM	2958	10.1%
	Thu May 8, 1997	6:00 - 9:00 AM	2257	16.0%
	Tue May 21, 1996	6:00 - 9:00 AM	1926	13.7%
	Wed Mar 29, 1995	6:00 - 9:00 AM	1088	2.8%
	Wed May 25, 1994	6:00 -10:00 AM	1354	7.9%
<b>P.M. PEAK</b>	Wed Dec 1, 2004	3:00 - 6:00 PM	3036	2.6%
	Wed Jun 4, 2003	3:00 - 6:00 PM	3708	6.0%
	Wed Jun 5, 2002	3:00 - 6:00 PM	3401	5.2%
	Thu Apr 26, 2001	3:00 - 6:00 PM	3134	3.9%
	Tue May 9, 2000	3:00 - 6:00 PM	2484	5.6%
	Tue Mar 2, 1999	3:00 - 6:00 PM	2307	4.3%
	Tue Oct 27, 1998	3:00 - 6:00 PM	2218	6.0%
	Wed May 7, 1997	3:00 - 7:00 PM	2665	8.0%
	Tue May 7, 1996	3:00 - 7:00 PM	2609	4.2%
	Wed Apr 5, 1995	3:00 - 7:00 PM	3238	3.1%
	Wed May 25, 1994	3:00 - 6:00 PM	2507	5.4%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.

(b) Evening period of operation from 3:00 to 7:00 PM.

# ALAMEDA-880

Whipple Road to South of Route 238

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Tue Nov 2, 2004	6:00 - 9:00 AM	2954	5.3%
	Thu May 22, 2003	6:00 - 9:00 AM	2920	1.4%
	Thu Sep 12, 2002	6:00 - 9:00 AM	2560	8.8%
	Thu Oct 11, 2001	6:00 - 9:00 AM	2212	5.2%
	Tue Nov 7, 2000	6:00 - 9:00 AM	1648	7.6%
	Tue Nov 2, 1999	6:00 - 9:00 AM	1845	8.1%
	Wed Oct 28, 1998	6:00 - 9:00 AM	1582	17.2%
	Wed Oct 8, 1997	6:00 - 9:00 AM	1147	12.7%
	Tue Nov 5, 1996	6:00 - 9:00 AM	2291	8.1%
	Wed Mar 29, 1995	6:00 - 9:00 AM	1158	17.8%
	Wed May 25, 1994	6:00-10:00 AM	2033	9.7%
<b>P.M. PEAK</b>	Tue Nov 30, 2004	3:00 - 6:00 PM	3422	1.6%
	Thu Oct 9, 2003	3:00 - 6:00 PM	3657	3.0%
	Wed May 8, 2002	3:00 - 6:00 PM	3878	8.4%
	Wed May 2, 2001	3:00 - 6:00 PM	4069	4.8%
	Thu Oct 5, 2000	3:00 - 6:00 PM	4433	6.4%
	Tue Nov 2, 1999	3:00 - 6:00 PM	2238	26.5%
	Wed Oct 28, 1998	3:00 - 6:00 PM	2515	8.3%
	Tue May 6, 1997	3:00 - 7:00 PM	3788	11.1%
	Thu Oct 10, 1996	3:00 - 7:00 PM	4098	6.0%
	Wed Mar 29, 1995	3:00 - 7:00 PM	3869	11.0%
	Wed May 25, 1994	3:00 - 6:00 PM	2249	5.4%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.

(b) Evening period of operation from 3:00 to 7:00 PM.

# ALAMEDA-880

Whipple Road to Mission Boulevard

## Southbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	6:00 - 9:00 AM		8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	24	1	9	1
Buses	12	16	3	0
Carpools <sup>(1)</sup>	2235	250	977	66
Vanpools	21	1	10	1
Single Occ. <sup>(2)</sup>	—	13570	—	4397
Violators	63	—	40	—
<b>TOTAL</b>	<b>2355</b>	<b>13838</b>	<b>1039</b>	<b>4465</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	24	1	9	1
Buses	420	560	105	0
Carpools <sup>(1)</sup>	4632	529	2018	142
Vanpools	210	10	100	10
Single Occ. <sup>(2)</sup>	—	13570	—	4397
Violators	63	—	40	—
<b>TOTAL</b>	<b>5349</b>	<b>14670</b>	<b>2272</b>	<b>4550</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.3 persons/veh		2.2 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	2.7 %		3.8 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 11/09/04 at Mowry I/C.

# ALAMEDA-880

Whipple Road to Mission Boulevard

## Southbound - P.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	20	7	2	1
Buses	5	16	2	1
Carpools <sup>(1)</sup>	2421	710	906	106
Vanpools	14	20	0	3
Single Occ. <sup>(2)</sup>	—	14431	—	5010
Violators	179	—	11	—
<b>TOTAL</b>	<b>2639</b>	<b>15184</b>	<b>921</b>	<b>5121</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	20	7	2	1
Buses	175	560	70	35
Carpools <sup>(1)</sup>	5190	1536	1829	218
Vanpools	140	200	0	30
Single Occ. <sup>(2)</sup>	—	14431	—	5010
Violators	179	—	11	—
<b>TOTAL</b>	<b>5704</b>	<b>16734</b>	<b>1912</b>	<b>5294</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.2 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	6.8 %		1.2 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 12/14/04 at Mowry I/C.

# ALAMEDA-880

Mission Boulevard to Whipple Road

## Northbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	6:00 - 9:00 AM		7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	11	6	5	4
Buses	13	21	10	6
Carpools <sup>(1)</sup>	1076	395	412	130
Vanpools	16	35	5	12
Single Occ. <sup>(2)</sup>	—	10470	—	3858
Violators	44	—	10	—
<b>TOTAL</b>	<b>1160</b>	<b>10927</b>	<b>442</b>	<b>4010</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	11	6	5	4
Buses	455	735	350	210
Carpools <sup>(1)</sup>	2290	829	893	280
Vanpools	160	350	50	120
Single Occ. <sup>(2)</sup>	—	10470	—	3858
Violators	44	—	10	—
<b>TOTAL</b>	<b>2960</b>	<b>12390</b>	<b>1308</b>	<b>4472</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.6 persons/veh		3.0 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	3.8 %		2.3 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 11/04/04 at Mowry I/C.

# ALAMEDA-880

Mission Boulevard to Whipple Road

## Northbound - P.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	55	13	19	2
Buses	4	2	1	1
Carpools <sup>(1)</sup>	2080	609	734	249
Vanpools	7	22	1	7
Single Occ. <sup>(2)</sup>	—	13834	—	4568
Violators	4	—	2	—
<b>TOTAL</b>	<b>2150</b>	<b>14480</b>	<b>757</b>	<b>4827</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	55	13	19	2
Buses	140	70	35	35
Carpools <sup>(1)</sup>	4317	1339	1544	548
Vanpools	70	220	10	70
Single Occ. <sup>(2)</sup>	—	13834	—	4568
Violators	4	—	2	—
<b>TOTAL</b>	<b>4586</b>	<b>15476</b>	<b>1610</b>	<b>5223</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.2 %		0.3 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 11/23/04 at Mowry I/C.

# ALAMEDA-880

Whipple Road to Mission Boulevard

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Tue Nov 9, 2004	6:00 - 9:00 AM	2355	<b>2.7%</b>
	Tue Jun 3, 2003	6:00 - 9:00 AM	2418	<b>3.5%</b>
	Tue Sep 24, 2002	6:00 - 9:00 AM	2525	<b>3.2%</b>
	Tue Mar 27, 2001	6:00 - 9:00 AM	3423	<b>4.8%</b>
	Tue Mar 28, 2000	6:00 - 9:00 AM	2438	<b>6.2%</b>
	Wed May 19, 1999	6:00 - 9:00 AM	2118	<b>3.7%</b>
<b>P.M. PEAK</b>	Tue Dec 14, 2004	3:00 - 6:00 PM	2639	<b>6.8%</b>
	Wed May 7, 2003	3:00 - 6:00 PM	2227	<b>4.2%</b>
	Tue May 7, 2002	3:00 - 6:00 PM	2114	<b>5.8%</b>
	Wed Oct 17, 2001	3:00 - 6:00 PM	2157	<b>3.8%</b>
	Thu Nov 9, 2000	3:00 - 6:00 PM	2060	<b>5.9%</b>
	Tue Mar 9, 1999	3:00 - 6:00 PM	1966	<b>20.7%</b>

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.

# ALAMEDA-880

Mission Boulevard to Whipple Road

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu Nov 4, 2004	6:00 - 9:00 AM	1160	<b>3.8%</b>
	Wed Oct 15, 2003	6:00 - 9:00 AM	1413	<b>2.5%</b>
	Tue Apr 16, 2002	6:00 - 9:00 AM	925	<b>2.9%</b>
	Thu Nov 1, 2001	6:00 - 9:00 AM	856	<b>9.7%</b>
	Wed Mar 29, 2000	6:00 - 9:00 AM	956	<b>5.6%</b>
	Wed Mar 10, 1999	6:00 - 9:00 AM	833	<b>13.2%</b>
<b>P.M. PEAK</b>	Tue Nov 23, 2004	3:00 - 6:00 PM	2150	<b>0.2%</b>
	Wed Oct 15, 2003	3:00 - 6:00 PM	2366	<b>3.1%</b>
	Wed May 15, 2002	3:00 - 6:00 PM	2663	<b>6.0%</b>
	Thu Jun 7, 2001	3:00 - 6:00 PM	2755	<b>3.9%</b>
	Wed Nov 1, 2000	3:00 - 6:00 PM	3263	<b>3.6%</b>
	Thu Mar 18, 1999	3:00 - 6:00 PM	2657	<b>4.6%</b>

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.



# ALAMEDA-880

16th Street to SFOBB Toll Plaza

## Northbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 7:00 - 10:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	60	0	18	0
Buses	44	0	16	0
Carpools <sup>(1)</sup>	1271	0	489	0
Vanpools	16	19	10	8
1 and 2 Occ. <sup>(2)</sup>	—	3252	—	1044
Violators	256	—	124	—
<b>TOTAL</b>	<b>1647</b>	<b>3271</b>	<b>657</b>	<b>1052</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	60	0	34	2
Buses	1540	0	560	0
Carpools <sup>(1)</sup>	3670	0	1407	0
Vanpools	160	190	100	80
1 and 2 Occ. <sup>(2)</sup>	—	3589	—	1079
Violators	402	—	194	—
<b>TOTAL</b>	<b>5832</b>	<b>3779</b>	<b>2295</b>	<b>1161</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	3.5 persons/veh		3.5 persons/veh	
Mixed Flow occupancy rate	1.2 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	2.0 persons/veh		2.0 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	15.5 %		18.9 %	

**NOTES:** (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 5:00 to 10:00 A.M.

(5) Observations conducted 10/28/04 north of 7th Street Interchange.

# ALAMEDA-880

16th Street to SFOBB Toll Plaza

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu Oct 28, 2004	7:00 - 10:00 AM	1647	15.5%
	Wed May 21, 2003	5:00 - 10:00 AM	1451	5.6%
	Wed Apr 17, 2002	6:00 - 10:00 AM	1613	4.8%
	Thu Mar 22, 2001	6:00 - 10:00 AM	2402	15.5%
	Wed Sep 27, 2000	7:00 - 10:00 AM	2983	16.4%
	Tue May 18, 1999	6:00 - 10:00 AM	3471	3.1%
	Thu Sep 10, 1998	6:00 - 10:00 AM	1937	11.7%
<b>P.M. PEAK</b>	Year 2004	-	-	-
	Tue May 20, 2003	3:00 - 7:00 PM	457	3.5%
	Wed Apr 17, 2002	3:00 - 7:00 PM	486	6.8%
	Thu Oct 11, 2001	3:00 - 7:00 PM	397	14.6%
	Wed Oct 18, 2000	3:00 - 7:00 PM	513	43.3%
	Thu Sep 30, 1999	3:00 - 7:00 PM	587	16.5%
	Thu Sep 10, 1998	3:00 - 7:00 PM	343	14.9%

**NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2004 off-peak direction

# CONTRA COSTA-4

West of Railroad Ave. to Port Chicago Highway

## Westbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 6:00 - 7:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	65	11	25	2
Buses	3	3	2	0
Carpools <sup>(1)</sup>	2314	450	844	0
Vanpools	5	0	3	0
Single Occ. <sup>(2)</sup>	—	14835	—	5952
Violators	49	—	0	—
<b>TOTAL</b>	<b>2436</b>	<b>15299</b>	<b>874</b>	<b>5954</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	65	11	25	2
Buses	105	105	70	0
Carpools <sup>(1)</sup>	4695	981	1688	0
Vanpools	50	0	30	0
Single Occ. <sup>(2)</sup>	—	14835	—	5952
Violators	49	—	0	—
<b>TOTAL</b>	<b>4964</b>	<b>15932</b>	<b>1813</b>	<b>5954</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.0 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.0 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.1 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	2.0 %		0.0 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 6:00 to 9:00 A.M.

(5) Observations conducted 10/21/04 at Bailey Road I/C.

# CONTRA COSTA-4

Port Chicago Highway to West of Railroad Ave.

## Eastbound - P.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	11	9	1	3
Buses	3	37	0	13
Carpools <sup>(1)</sup>	2211	1090	752	466
Vanpools	24	30	13	11
Single Occ. <sup>(2)</sup>	—	16035	—	5445
Violators	40	—	3	—
<b>TOTAL</b>	<b>2289</b>	<b>17201</b>	<b>769</b>	<b>5938</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	11	9	1	3
Buses	105	1295	0	455
Carpools <sup>(1)</sup>	4503	2348	1541	986
Vanpools	240	300	130	110
Single Occ. <sup>(2)</sup>	—	16035	—	5445
Violators	40	—	3	—
<b>TOTAL</b>	<b>4899</b>	<b>19987</b>	<b>1675</b>	<b>6999</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.2 persons/veh	
Mixed Flow occupancy rate	1.2 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.7 %		0.4 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 12/07/04 at San Marcos I/C.

# CONTRA COSTA-4

West of Railroad Ave. to Port Chicago Highway

## Violation History

Westbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu Oct 21, 2004	6:00 - 9:00 AM	2436	<b>2.0%</b>
	Thu Oct 16, 2003	6:00 - 9:00 AM	2657	<b>3.6%</b>
	Thu May 23, 2002	6:00 - 9:00 AM	2225	<b>4.5%</b>
	Wed Sep 19, 2001	6:00 - 9:00 AM	1174	<b>7.0%</b>
	Wed May 10, 2000	6:00 - 9:00 AM	861	<b>5.6%</b>

**NOTES:** (a) Morning period of operation from 6:00 to 9:00 AM.

# CONTRA COSTA-4

Port Chicago Highway to West of Railroad Ave.

## Violation History

Eastbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>P.M. PEAK</b>	Tue Dec 7, 2004	3:00 - 6:00 PM	2289	1.7%
	Wed May 14, 2003	3:00 - 6:00 PM	2292	1.9%
	Tue Mar 19, 2002	3:00 - 6:00 PM	2248	4.4%
	Tue Oct 30, 2001	3:00 - 6:00 PM	2011	4.0%

**NOTES:** (a) Evening period of operation from 3:00 to 7:00 PM.

# CONTRA COSTA-80

Route 4 to Alameda County Line

## Westbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 7:00 - 10:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	55	24	18	10
Buses	73	22	36	8
Carpools <sup>(1)</sup>	2129	352	1226	114
Vanpools	19	2	10	0
1 and 2 Occ. <sup>(2)</sup>	—	13148	—	3931
Violators	231	—	44	—
<b>TOTAL</b>	<b>2507</b>	<b>13548</b>	<b>1334</b>	<b>4063</b>
PERSONS	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	55	24	18	10
Buses	2555	770	1260	280
Carpools <sup>(1)</sup>	6149	938	3550	294
Vanpools	190	20	100	0
1 and 2 Occ. <sup>(2)</sup>	—	14551	—	4306
Violators	296	—	54	—
<b>TOTAL</b>	<b>9245</b>	<b>16303</b>	<b>4982</b>	<b>4890</b>
RATES				
HOV Lane occupancy rate	3.7	persons/veh	3.7	persons/veh
Mixed Flow occupancy rate	1.2	persons/veh	1.2	persons/veh
Overall occupancy (incl. buses)	1.6	persons/veh	1.8	persons/veh
Violation rate <sup>(3)</sup> (HOV Lane)	9.2	%	3.3	%

**NOTES:** (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 5:00 to 10:00 A.M.

(5) Observations conducted 11/9/04 east of Hilltop Drive Interchange.

# CONTRA COSTA-80

Alameda County Line to Route 4

## Eastbound - P.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	104	12	40	6
Buses	82	27	34	5
Carpools <sup>(1)</sup>	2608	493	991	149
Vanpools	121	12	25	1
1 and 2 Occ. <sup>(2)</sup>	—	15359	—	5124
Violators	299	—	99	—
<b>TOTAL</b>	<b>3214</b>	<b>15903</b>	<b>1189</b>	<b>5285</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	104	12	40	6
Buses	2870	945	1190	175
Carpools <sup>(1)</sup>	7522	1291	2869	406
Vanpools	1210	120	250	10
1 and 2 Occ. <sup>(2)</sup>	—	17657	—	5815
Violators	392	—	128	—
<b>TOTAL</b>	<b>12098</b>	<b>20025</b>	<b>4477</b>	<b>6412</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	3.8 persons/veh		3.8 persons/veh	
Mixed Flow occupancy rate	1.3 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.7 persons/veh		1.7 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	9.3 %		8.3 %	

**NOTES:** (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 10/21/04 east of Hilltop Drive Interchange.



# CONTRA COSTA-80

Route 4 to Alameda County Line

## Violation History

Westbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Tue Nov 9, 2004	7:00 - 10:00 AM	2507	<b>9.2%</b>
	Fri May 9, 2003	6:00 - 10:00 AM	4509	<b>27.2%</b>
	Tue Apr 16, 2002	7:00 - 10:00 AM	2656	<b>6.4%</b>
	Tue Mar 27, 2001	6:00 - 10:00 AM	3640	<b>8.7%</b>
	Tue Oct 3, 2000	7:00 - 10:00 AM	2643	<b>9.5%</b>
	Tue Nov 9, 1999	7:00 - 10:00 AM	2186	<b>11.1%</b>
	Tue Oct 6, 1998	7:00 - 10:00 AM	1743	<b>10.0%</b>
	Thu Oct 30, 1997	6:00 - 10:00 AM	1483	<b>32.6%</b>
<b>P.M. PEAK</b>	Year 2004	-	-	-
	Year 2003	-	-	-
	Tue May 7, 2002	3:00 - 7:00 PM	1401	<b>25.7%</b>
	Thu Oct 4, 2001	3:00 - 7:00 PM	1432	<b>24.2%</b>
	Thu Apr 13, 2000	3:00 - 7:00 PM	1167	<b>37.3%</b>
	Wed Apr 21, 1999	3:00 - 7:00 PM	1068	<b>18.5%</b>
	Tue Oct 6, 1998	3:00 - 7:00 PM	802	<b>31.9%</b>

**NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2004 for off-peak direction

# CONTRA COSTA-80

Alameda County Line to Route 4

## Violation History

Eastbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Year 2004	-	-	-
	Year 2003	-	-	-
	Tue Apr 23, 2002	6:00 - 10:00 AM	632	19.8%
	Tue May 15, 2001	6:00 - 10:00 AM	553	18.3%
	Thu Dec 14, 2000	7:00 - 10:00 AM	483	26.3%
	Wed Apr 7, 1999	7:00 - 10:00 AM	498	26.9%
	Thu Oct 1, 1998	6:00 - 10:00 AM	386	43.0%
<b>P.M. PEAK</b>	Thu Oct 21, 2004	3:00 - 6:00 PM	3214	9.3%
	Wed May 28, 2003	3:00 - 7:00 PM	4256	11.5%
	Tue Apr 16, 2002	3:00 - 7:00 PM	3921	9.0%
	Thu Sep 20, 2001	3:00 - 7:00 PM	4649	4.4%
	Tue Sep 26, 2000	3:00 - 7:00 PM	3780	18.0%
	Tue Apr 13, 1999	3:00 - 7:00 PM	2956	9.5%
	Thu Oct 22, 1998	3:00 - 6:00 PM	2422	17.8%
	Tue Apr 8, 1997	3:00 - 7:00 PM	1680	18.5%

**NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2004 off-peak direction

# CONTRA COSTA-680

S/O Route 4 to N/O North Main St.

# Southbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	6:00 - 9:00 AM		7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	76	49	32	9
Buses	9	53	4	21
Carpools <sup>(1)</sup>	1940	587	754	348
Vanpools	2	1	0	0
Single Occ. <sup>(2)</sup>	—	22828	—	7754
Violators	41	—	24	—
<b>TOTAL</b>	<b>2068</b>	<b>23518</b>	<b>814</b>	<b>8132</b>
PERSONS	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
	76	49	32	9
	315	1855	140	735
Carpools <sup>(1)</sup>	4042	1271	1582	761
Vanpools	20	10	0	0
Single Occ. <sup>(2)</sup>	—	22828	—	7754
Violators	41	—	24	—
<b>TOTAL</b>	<b>4494</b>	<b>26013</b>	<b>1778</b>	<b>9259</b>
RATES	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
	2.2 persons/veh	1.1 persons/veh	2.2 persons/veh	1.1 persons/veh
	1.2 persons/veh	1.2 persons/veh	1.2 persons/veh	1.2 persons/veh
Violation rate <sup>(3)</sup> (HOV Lane)	2.0 %		2.9 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 6:00 to 9:00 A.M.

(5) Observations conducted 10/06/04 at Truck Scale.

# CONTRA COSTA-680

S/O Route 4 to N/O North Main St.

# Southbound - P.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 4:00 - 7:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	32	28	13	8
Buses	3	16	3	5
Carpools <sup>(1)</sup>	1002	2257	370	775
Vanpools	0	3	0	3
Single Occ. <sup>(2)</sup>	—	17534	—	6637
Violators	46	—	1	—
<b>TOTAL</b>	<b>1083</b>	<b>19838</b>	<b>387</b>	<b>7428</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	32	28	13	8
Buses	105	560	105	175
Carpools <sup>(1)</sup>	2194	4813	791	1658
Vanpools	0	30	0	30
Single Occ. <sup>(2)</sup>	—	17534	—	6637
Violators	46	—	1	—
<b>TOTAL</b>	<b>2377</b>	<b>22965</b>	<b>910</b>	<b>8508</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.2 persons/veh		2.4 persons/veh	
Mixed Flow occupancy rate	1.2 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	4.2 %		0.3 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 10/05/04 at Truck Scale.

# CONTRA COSTA - 680

S/O Route 4 to N/O North Main St

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Wed Oct 6, 2004	6:00 - 9:00 AM	2068	<b>2.0%</b>
<b>P.M. PEAK</b>	Tue Oct 5, 2004	3:00 - 6:00 PM	1083	<b>4.2%</b>

**NOTES:** (a) Morning period of operation from 6:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.

# CONTRA COSTA-680

Livorna Road to Alcosta Boulevard

# Southbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	6:00 - 9:00 AM		7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	74	7	30	4
Buses	14	11	8	3
Carpools <sup>(1)</sup>	1916	156	725	73
Vanpools	18	1	6	1
Single Occ. <sup>(2)</sup>	—	13371	—	4832
Violators	96	—	45	—
<b>TOTAL</b>	<b>2118</b>	<b>13546</b>	<b>814</b>	<b>4913</b>
PERSONS	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
	74	7	30	4
	490	385	280	105
Carpools <sup>(1)</sup>	3965	329	1503	156
Vanpools	180	10	60	10
Single Occ. <sup>(2)</sup>	—	13371	—	4832
Violators	96	—	45	—
<b>TOTAL</b>	<b>4805</b>	<b>14102</b>	<b>1918</b>	<b>5107</b>
RATES	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
	2.3 persons/veh	1.0 persons/veh	2.4 persons/veh	1.0 persons/veh
	1.2 persons/veh	1.2 persons/veh	1.2 persons/veh	1.2 persons/veh
Violation rate <sup>(3)</sup> (HOV Lane)	4.5 %		5.5 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 6:00 to 9:00 A.M.

(5) Observations conducted 10/05/04 at Stone Valley Road.

# CONTRA COSTA-680

Livorna Road to Alcosta Boulevard.

# Southbound - P.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	31	1	18	0
Buses	13	23	4	5
Carpools <sup>(1)</sup>	2411	919	860	219
Vanpools	7	10	1	1
Single Occ. <sup>(2)</sup>	—	14044	—	4971
Violators	65	—	28	—
<b>TOTAL</b>	<b>2527</b>	<b>14997</b>	<b>911</b>	<b>5196</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	31	1	18	0
Buses	455	805	140	175
Carpools <sup>(1)</sup>	5131	1957	1839	470
Vanpools	70	100	10	10
Single Occ. <sup>(2)</sup>	—	14044	—	4971
Violators	65	—	28	—
<b>TOTAL</b>	<b>5752</b>	<b>16907</b>	<b>2035</b>	<b>5626</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.3 persons/veh		2.2 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	2.6 %		3.1 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 3:00 to 6:00 P.M.

(5) Observations conducted 10/28/04 at Stone Valley Road.

# CONTRA COSTA-680

Alcosta Boulevard to Livorna Road

## Northbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	44	4	13	0
Buses	29	7	20	4
Carpools <sup>(1)</sup>	1758	181	719	77
Vanpools	11	1	4	0
Single Occ. <sup>(2)</sup>	—	12425	—	5049
Violators	57	—	41	—
<b>TOTAL</b>	1899	12618	797	5130

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	44	4	13	0
Buses	1015	245	700	140
Carpools <sup>(1)</sup>	3623	391	1484	171
Vanpools	110	10	40	0
Single Occ. <sup>(2)</sup>	—	12425	—	5049
Violators	57	—	41	—
<b>TOTAL</b>	4849	13075	2278	5360

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.6 persons/veh		2.9 persons/veh	
Mixed Flow occupancy rate	1.0 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	3.0 %		5.1 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 6:00 to 9:00 A.M.

(5) Observations conducted 10/07/04 at Stone Valley Road.



# CONTRA COSTA-680

Alcosta Boulevard to Livorna Road

## Northbound - P.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	29	3	13	1
Buses	23	4	9	1
Carpools <sup>(1)</sup>	3656	461	1168	15
Vanpools	43	8	11	0
Single Occ. <sup>(2)</sup>	—	13679	—	5204
Violators	91	—	48	—
<b>TOTAL</b>	<b>3842</b>	<b>14155</b>	<b>1249</b>	<b>5221</b>
PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	29	3	13	1
Buses	805	140	315	35
Carpools <sup>(1)</sup>	7564	998	2354	33
Vanpools	430	80	110	0
Single Occ. <sup>(2)</sup>	—	13679	—	5204
Violators	91	—	48	—
<b>TOTAL</b>	<b>8919</b>	<b>14900</b>	<b>2840</b>	<b>5273</b>
RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.3 persons/veh		2.3 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	2.4 %		3.8 %	

**NOTES:** (1) Two or more persons per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 6:00 P.M.

(5) Observations conducted 12/02/04 at Stone Valley Road.

# CONTRA COSTA-680

## Violation History

Livorna Road to Alcosta Boulevard

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Tue Oct 5, 2004	6:00 - 9:00 AM	2118	4.5%
	Thu Apr 3, 2003	6:00 - 9:00 AM	2114	0.6%
	Thu Jun 13, 2002	6:00 - 9:00 AM	2480	1.7%
	Thu Mar 15, 2001	6:00 - 9:00 AM	2609	5.3%
	Thu Apr 6, 2000	6:00 - 9:00 AM	2258	2.8%
	Wed Sep 29, 1999	6:00 - 9:00 AM	1974	3.1%
	Tues Mar 10, 1998	6:00 - 9:00 AM	1545	9.0%
	Wed Oct 29, 1997	6:00 - 9:00 AM	1791	3.9%
	Thu Oct 10, 1996	6:00 - 9:00 AM	1359	2.6%
	Tue Nov 7, 1995	6:00 - 9:00 AM	1179	1.2%
	Thu Oct 13, 1994	6:45 - 9:00 AM	416	16.3%
<b>P.M. PEAK</b>	Thu Oct 28, 2004	3:00 - 6:00 PM	2527	2.6%
	Tue Apr 8, 2003	3:00 - 6:00 PM	2109	2.4%
	Wed Mar 13, 2002	3:00 - 6:00 PM	2009	7.8%
	Wed May 9, 2001	3:00 - 6:00 PM	1831	8.5%
	Tue Dec 12, 2000	3:00 - 6:00 PM	1337	4.3%
	Wed Sep 29, 1999	3:00 - 6:00 PM	1604	7.2%
	Tue Sep 22, 1998	3:00 - 6:00 PM	2004	8.4%
	Thu Apr 17, 1997	3:00 - 6:00 PM	1344	2.0%
	Wed Oct 9, 1996	3:00 - 6:00 PM	1182	4.1%
	Tue Nov 7, 1995	3:00 - 6:00 PM	645	7.0%
	Thu Oct 13, 1994	3:00 - 6:00 PM	523	11.7%

**NOTES:** (a) Morning period of operation from 6:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 6:00 PM.

# CONTRA COSTA-680

Alcosta Boulevard to Livorna Road

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu Oct 7, 2004	6:00 - 9:00 AM	1899	3.0%
	Tue Oct 21, 2003	6:00 - 9:00 AM	1920	5.0%
	Thu Apr 25, 2002	6:00 - 9:00 AM	1746	6.9%
	Tue Sep 25, 2001	6:00 - 9:00 AM	1681	3.0%
	Thu Nov 2, 2000	6:00 - 9:00 AM	1263	7.0%
	Tue Sep 28, 1999	6:00 - 9:00 AM	621	7.1%
	Thu Nov 5, 1998	6:00 - 9:00 AM	1213	4.6%
	Tue Oct 28, 1997	6:00 - 9:00 AM	1139	4.1%
	Wed Oct 9, 1996	6:00 - 9:00 AM	958	6.6%
	Thu Nov 2, 1995	6:00 - 9:00 AM	1064	4.4%
	Wed Oct 12, 1994	6:45 - 9:00 AM	261	15.7%
<b>P.M. PEAK</b>	Thu Dec 2, 2004	3:00 - 6:00 PM	3842	2.4%
	Tue Oct 21, 2003	3:00 - 6:00 PM	3677	3.4%
	Wed Nov 20, 2002	3:00 - 6:00 PM	3989	4.5%
	Tue May 8, 2001	3:00 - 6:00 PM	3742	5.0%
	Wed Oct 4, 2000	3:00 - 6:00 PM	4165	3.6%
	Tue Oct 26, 1999	3:00 - 6:00 PM	3224	4.9%
	Tue Oct 6, 1998	3:00 - 6:00 PM	2819	3.1%
	Wed Oct 15, 1997	3:00 - 6:00 PM	2755	4.9%
	Thu Oct 3, 1996	3:00 - 6:00 PM	2523	6.1%
	Thu Nov 2, 1995	3:00 - 6:00 PM	1902	1.2%
	Wed Oct 12, 1994	3:00 - 6:00 PM	466	17.0%

**NOTES:** (a) Morning period of operation from 6:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 6:00 PM.

# MARIN-101

Greenbrae I/C to Richardson Bay Bridge

# Southbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:30 - 8:30 AM		PEAK HOUR 7:30 - 8:30 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	32	4	18	1
Buses	45	50	27	20
Carpools <sup>(1)</sup>	885	668	520	390
Vanpools	8	0	4	0
Single Occ. <sup>(2)</sup>	—	8364	—	4184
Violators	45	—	14	—
<b>TOTAL</b>	<b>1015</b>	<b>9086</b>	<b>583</b>	<b>4595</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:30 - 8:30 AM		PEAK HOUR 7:30 - 8:30 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	32	4	18	1
Buses	1575	1750	945	700
Carpools <sup>(1)</sup>	1985	1416	1196	835
Vanpools	80	0	40	0
Single Occ. <sup>(2)</sup>	—	8364	—	4184
Violators	45	—	14	—
<b>TOTAL</b>	<b>3717</b>	<b>11534</b>	<b>2213</b>	<b>5720</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:30 - 8:30 AM		PEAK HOUR 7:30 - 8:30 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	3.7 persons/veh		3.8 persons/veh	
Mixed Flow occupancy rate	1.3 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.5 persons/veh		1.5 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	4.4 %		2.4 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 6:30 to 8:30 A.M.

(5) Observations conducted 11/04/04 at Route 131, East Blithdale Ave. I/C

# MARIN-101

Richardson Bridge to Greenbrae I/C

## Northbound - P.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 4:30 - 7:00 PM		PEAK HOUR 5:30 - 6:30 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	78	46	34	19
Buses	70	51	29	16
Carpools <sup>(1)</sup>	1338	1170	685	439
Vanpools	14	4	8	0
Single Occ. <sup>(2)</sup>	—	10228	—	4270
Violators	29	—	2	—
<b>TOTAL</b>	<b>1529</b>	<b>11499</b>	<b>758</b>	<b>4744</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	78	46	34	19
Buses	2450	1785	1015	560
Carpools <sup>(1)</sup>	2712	2419	1391	908
Vanpools	140	40	80	0
Single Occ. <sup>(2)</sup>	—	10228	—	4270
Violators	29	—	2	—
<b>TOTAL</b>	<b>5409</b>	<b>14518</b>	<b>2522</b>	<b>5757</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	3.5 persons/veh		3.3 persons/veh	
Mixed Flow occupancy rate	1.3 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.5 persons/veh		1.5 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.9 %		0.3 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 4:30 to 7:00 P.M.

(5) Observations conducted 10/13/04 at Route 131, E. Blithdale Ave. I/C

# MARIN-101

Greenbrae I/C to Richardson Bay Bridge

## Violation History

Southbound

A.M. PEAK	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
	Thu Nov 4, 2004	6:30 - 8:30 AM	1015	4.4%
	Tue Apr 8, 2003	6:30 - 8:30 AM	1118	3.4%
	Wed Mar 20, 2002	6:30 - 8:30 AM	1591	1.9%
	Wed Mar 28, 2001	6:30 - 8:30 AM	1495	2.3%
	Thu Mar 23, 2000	6:30 - 8:30 AM	1538	2.8%
	Wed Mar 17, 1999	6:30 - 8:30 AM	1394	2.3%
	Tue Mar 3, 1998	6:30 - 8:30 AM	1106	1.6%
	Tue Mar 11, 1997	6:30 - 8:30 AM	1367	2.4%
	Thu Oct 17, 1996	6:30 - 8:30 AM	1446	1.2%
	Tue Oct 31, 1995	6:30 - 8:30 AM	1389	3.7%
	Thu Oct 13, 1994	6:30 - 8:30 AM	1135	6.4%
	Wed Apr 21, 1993	6:30 - 8:30 AM	1325	7.2%
	Thu Mar 26, 1992	6:30 - 8:30 AM	1565	6.8%
	Wed May 22, 1991	6:30 - 8:30 AM	1337	6.1%
	Wed Apr 25, 1990	6:30 - 8:30 AM	1340	4.2%
	Wed Mar 15, 1989	6:30 - 8:30 AM	1517	10.7%
	Wed Sep 28, 1988	6:30 - 8:30 AM	466	16.5%

**NOTES:** (a) Minimum occupancy requirement was reduced to 2 persons per vehicle on October 1, 1988  
(b) Morning period of operation from 6:30 to 8:30 AM.

# MARIN-101

Richardson Bay Bridge to Greenbrae I/C

## Violation History

Northbound

P.M. PEAK	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
	Wed Oct 13, 2004	4:30 - 7:00 PM	1529	1.9%
	Wed Apr 16, 2003	4:30 - 7:00 PM	1370	2.4%
	Tue Sep 17, 2002	4:30 - 7:00 PM	1365	1.5%
	Tue Apr 3, 2001	4:30 - 7:00 PM	1544	3.9%
	Tue Oct 3, 2000	4:30 - 7:00 PM	1771	1.6%
	Tue Mar 16, 1999	4:30 - 7:00 PM	1719	1.9%
	Wed Apr 22, 1998	4:30 - 7:00 PM	1838	4.8%
	Wed Oct 1, 1997	4:30 - 7:00 PM	2217	5.4%
	Thu Oct 24, 1996	4:30 - 7:00 PM	1820	3.4%
	Tue Oct 24, 1995	4:30 - 7:00 PM	1779	3.9%
	Tue Apr 5, 1994	4:30 - 7:00 PM	2031	0.2%
	Tue Apr 20, 1993	4:30 - 7:00 PM	1516	13.5%
	Tue Apr 28, 1992	4:30 - 7:00 PM	1296	9.0%
	Tue Oct 1, 1991	4:30 - 6:30 PM	1197	7.9%
	Wed Apr 25, 1990	4:30 - 7:00 PM	1180	7.5%
	Tue Mar 21, 1989	4:30 - 7:00 PM	1988	6.6%
	Thu Sep 29, 1988	4:30 - 7:00 PM	646	20.4%

**NOTES:** (a) Minimum occupancy requirement was reduced to 2 persons per vehicle on October 1, 1988  
(b) Evening period of operation from 4:30 to 7:00 PM.

# MARIN-101

Route 37 to N. San Pedro Rd

## Southbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:30 - 8:30 AM		PEAK HOUR 6:30 - 7:30 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	42	12	22	4
Buses	23	17	13	6
Carpools <sup>(1)</sup>	2223	293	1261	137
Vanpools	11	0	3	0
Single Occ. <sup>(2)</sup>	—	8017	—	3969
Violators	44	—	7	—
<b>TOTAL</b>	<b>2343</b>	<b>8339</b>	<b>1306</b>	<b>4116</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:30 - 8:30 AM		PEAK HOUR 6:30 - 7:30 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	42	12	22	4
Buses	805	595	455	210
Carpools <sup>(1)</sup>	4592	623	2616	288
Vanpools	110	0	30	0
Single Occ. <sup>(2)</sup>	—	8017	—	3969
Violators	44	—	7	—
<b>TOTAL</b>	<b>5593</b>	<b>9247</b>	<b>3130</b>	<b>4471</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:30 - 8:30 AM		PEAK HOUR 6:30 - 7:30 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.4 persons/veh		2.4 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.4 persons/veh		1.4 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.9 %		0.5 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 6:30 to 8:30 A.M.

(5) Observations conducted 11/03/04 at Alameda Del Prado Dr. I/C



# MARIN-101

N. San Pedro Rd to Route 37

## Northbound - P.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 4:30 - 7:00 PM		PEAK HOUR 4:30 - 5:30 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	53	47	30	24
Buses	38	27	19	11
Carpools <sup>(1)</sup>	1434	1262	638	552
Vanpools	13	6	8	3
Single Occ. <sup>(2)</sup>	—	13743	—	5973
Violators	39	—	7	—
<b>TOTAL</b>	<b>1577</b>	<b>15085</b>	<b>702</b>	<b>6563</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 4:30 - 7:00 PM		PEAK HOUR 4:30 - 5:30 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	53	47	30	24
Buses	1330	945	665	385
Carpools <sup>(1)</sup>	2964	2685	1321	1188
Vanpools	130	60	80	30
Single Occ. <sup>(2)</sup>	—	13743	—	5973
Violators	39	—	7	—
<b>TOTAL</b>	<b>4516</b>	<b>17480</b>	<b>2103</b>	<b>7600</b>

RATES	PEAK PERIOD <sup>(4)</sup> 4:30 - 7:00 PM		PEAK HOUR 4:30 - 5:30 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.9 persons/veh		3.0 persons/veh	
Mixed Flow occupancy rate	1.2 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	2.5 %		1.0 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 4:30 to 7:00 P.M.

(5) Observations conducted 10/07/04 at the Manuel Freitas Truck Scale

# MARIN-101

Route 37 to N. San Pedro Road

## Violation History

Southbound

A.M. PEAK	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
	Wed Nov 3, 2004	6:30 - 8:30 AM	2343	1.9%
	Thu Apr 3, 2003	6:30 - 8:30 AM	2335	2.2%
	Tue Mar 19, 2002	6:30 - 8:30 AM	2564	1.2%
	Wed Oct 31, 2001	6:30 - 8:30 AM	2520	1.4%
	Wed Mar 22, 2000	6:30 - 8:30 AM	2610	1.1%
	Thu Mar 18, 1999	6:30 - 8:30 AM	2256	1.8%
	Wed Mar 4, 1998	6:30 - 8:30 AM	2047	3.3%
	Wed Nov 5, 1997	6:30 - 8:30 AM	2690	5.1%
	Tue Nov 19, 1996	6:30 - 8:30 AM	2507	2.6%
	Wed Oct 25, 1995	6:30 - 8:30 AM	2609	4.3%
	Wed Mar 30, 1994	6:30 - 8:30 AM	1702	1.8%
	Tue Apr 27, 1993	6:30 - 8:30 AM	2042	4.8%
	Tue Mar 31, 1992	6:30 - 8:30 AM	1594	7.8%
	Thu Mar 7, 1991	6:45 - 8:30 AM	1423	6.3%
	Thu Apr 26, 1990	6:30 - 8:30 AM	1903	10.7%
	Wed Mar 15, 1989	6:30 - 8:30 AM	1767	10.5%
	Thu Sep 15, 1988	6:30 - 8:30 AM	597	36.7%

**NOTES:** (a) Minimum occupancy requirement was reduced to 2 persons per vehicle on October 1, 1988  
(b) Morning period of operation from 6:30 to 8:30 AM.

# MARIN-101

N. San Pedro Road to Route 37

## Violation History

Northbound

P.M. PEAK	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
	Thu Oct 7, 2004	4:30 - 7:00 PM	1577	2.5%
	Wed Apr 9, 2003	4:30 - 7:00 PM	1851	3.2%
	Thu Sep 19, 2002	4:30 - 7:00 PM	1552	2.6%
	Tue Sep 18, 2001	4:30 - 7:00 PM	1580	1.1%
	Tue Mar 21, 2000	4:30 - 7:00 PM	1921	2.7%
	Thu Sep 16, 1999	4:30 - 7:00 PM	1841	4.0%
	Tue Apr 7, 1998	4:30 - 7:00 PM	2147	2.4%
	Thu Oct 2, 1997	4:30 - 7:00 PM	1867	3.2%
	Thu Oct 17, 1996	4:30 - 7:00 PM	1983	3.9%
	Wed Apr 19, 1995	4:30 - 7:00 PM	1817	0.3%
	Thu Apr 7, 1994	4:30 - 7:00 PM	1233	0.9%
	Wed Apr 21, 1993	4:30 - 7:00 PM	1599	7.9%
	Wed Oct 7, 1992	4:30 - 6:45 PM	1718	7.6%
	Wed Mar 6, 1991	4:30 - 6:00 PM	1647	8.2%
	Thu Apr 26, 1990	4:30 - 7:00 PM	2576	9.3%
	Wed Mar 15, 1989	4:30 - 7:00 PM	2066	8.7%
	Wed Sep 28, 1988	4:30 - 7:00 PM	696	24.6%

**NOTES:** (a) Minimum occupancy requirement was reduced to 2 persons per vehicle on October 1, 1988  
(b) Evening period of operation from 4:30 to 7:00 PM.

# SANTA CLARA-85

Route 101 (Mountain View) to Route 280

# Southbound - P.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 5:15 PM		PEAK HOUR 3:00 - 4:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	25	3	4	3
Buses	0	2	0	1
Carpools <sup>(1)</sup>	1469	420	555	237
Vanpools	5	1	2	1
Single Occ. <sup>(2)</sup>	—	7720	—	3551
Violators	11	—	9	—
<b>TOTAL</b>	<b>1510</b>	<b>8146</b>	<b>570</b>	<b>3793</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 5:15 PM		PEAK HOUR 3:00 - 4:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	25	3	4	3
Buses	0	70	0	35
Carpools <sup>(1)</sup>	3041	904	1154	517
Vanpools	50	10	20	10
Single Occ. <sup>(2)</sup>	—	7720	—	3551
Violators	11	—	9	—
<b>TOTAL</b>	<b>3127</b>	<b>8707</b>	<b>1187</b>	<b>4116</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 5:15 PM		PEAK HOUR 3:00 - 4:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.7 %		1.6 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 11/30/04 at Fremont Avenue I/C

# SANTA CLARA-85

Route 280 to Route 101 (Mountain View)

# Northbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	59	2	23	1
Buses	1	0	0	0
Carpools <sup>(1)</sup>	2057	94	733	37
Vanpools	1	1	1	0
Single Occ. <sup>(2)</sup>	—	8767	—	3327
Violators	14	—	5	—
<b>TOTAL</b>	<b>2132</b>	<b>8864</b>	<b>762</b>	<b>3365</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	59	2	23	1
Buses	35	0	0	0
Carpools <sup>(1)</sup>	4311	189	1529	75
Vanpools	10	10	10	0
Single Occ. <sup>(2)</sup>	—	8767	—	3327
Violators	14	—	5	—
<b>TOTAL</b>	<b>4429</b>	<b>8968</b>	<b>1567</b>	<b>3403</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.0 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.7 %		0.7 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 11/03/04 at Fremont Avenue I/C

# SANTA CLARA-85

Route 101 (Mountain View) to Route 280

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Year 2004	-	-	-
	Year 2003	-	-	-
	Wed Oct 23, 2002	7:00 - 9:00 AM	540	10.0%
	Thu Jun 7, 2001	6:00 - 9:00 AM	560	4.1%
	Wed Sep 27, 2000	6:00 - 9:00 AM	604	13.2%
	Tue Jun 8, 1999	6:00 - 9:00 AM	597	9.4%
	Wed Mar 04, 1998	6:00 - 9:00 AM	551	0.5%
	Tue Feb 25, 1997	6:45 - 9:00 AM	397	5.3%
	Wed Apr 3, 1996	6:00 - 9:00 AM	359	5.0%
	Wed Sept 20, 1995	7:00 - 9:00 AM	345	6.4%
	Thu Dec 1, 1994	7:00 - 9:00 AM	618	2.1%
	Wed Jun 9, 1993	6:00 - 9:00 AM	286	26.6%
<b>P.M. PEAK</b>	Tue Nov 30, 2004	3:00 - 5:15 PM	1510	0.7%
	Wed Jun 4, 2003	3:00 - 6:00 PM	2323	1.6%
	Wed May 29, 2002	3:00 - 6:00 PM	2647	4.4%
	Tue Sep 25, 2001	3:00 - 6:00 PM	2656	6.4%
	Thu Jun 1, 2000	3:00 - 6:00 PM	2792	0.9%
	Thu May 13, 1999	3:00 - 6:00 PM	3121	1.4%
	Thu Apr 9, 1998	4:00 - 6:00 PM	2058	0.2%
	Tue Sept 30, 1997	3:00 - 6:00 PM	2277	1.2%
	Thu May 16, 1996	3:00 - 6:00 PM	2165	3.0%
	Thu Sept 21, 1995	3:00 - 6:00 PM	3671	2.4%
	Tue Nov 29, 1994	3:00 - 5:00 PM	970	2.1%
	Tue May 18, 1993	3:00 - 6:00 PM	1279	7.8%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2004 off-peak direction

# SANTA CLARA-85

Route 280 to Route 101 (Mountain View)

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Wed Nov 3, 2004	6:00 - 9:00 AM	2132	0.7%
	Wed Oct 29, 2003	6:00 - 9:00 AM	1151	0.8%
	Tue Oct 8, 2002	7:00 - 9:00 AM	1435	1.5%
	Tue Apr 10, 2001	6:00 - 9:00 AM	2471	1.8%
	Tue Oct 17, 2000	7:00 - 9:00 AM	2188	10.1%
	Wed Oct 6, 1999	6:00 - 9:00 AM	2402	4.9%
	Tue Dec 1, 1998	6:00 - 9:00 AM	2473	4.7%
	Thu Dec 4, 1997	7:00 - 9:00 AM	1584	0.1%
	Wed Nov 20, 1996	6:45 - 9:00 AM	1840	0.2%
	Tue Sept 12, 1995	7:00 - 9:00 AM	1896	1.4%
	Tue Nov 29, 1994	7:00 - 9:00 AM	1073	1.8%
	Tue Nov 16, 1993	6:30 - 9:00 AM	1031	11.1%
<b>P.M. PEAK</b>	Year 2004	-	-	-
	Year 2003	-	-	-
	Thu Oct 31, 2002	3:00 - 5:30 PM	761	2.2%
	Wed Oct 10, 2001	3:00 - 6:00 PM	1124	0.4%
	Thu May 4, 2000	3:00 - 6:00 PM	940	2.1%
	Thu Oct 28, 1999	3:00 - 6:00 PM	845	1.2%
	Wed Mar 4, 1998	3:00 - 6:00 PM	852	3.5%
	Tue Feb 25, 1997	3:00 - 6:00 PM	1051	2.7%
	Tue Jun 4, 1996	3:00 - 6:00 PM	1008	8.2%
	Tue Sept 12, 1995	3:00 - 6:00 PM	652	9.8%
	Thu Dec 1, 1994	3:00 - 5:00 PM	569	4.4%
	Thu Apr 29, 1993	3:00 - 6:00 PM	382	31.4%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.

(b) Evening period of operation from 3:00 to 7:00 PM.

(c) Data was not collected in 2004 for off-peak direction

# SANTA CLARA-85

Route 280 to Almaden Expressway

# Southbound - P.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 3:00 - 4:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	103	10	21	1
Buses	3	6	0	4
Carpools <sup>(1)</sup>	2168	557	706	309
Vanpools	2	55	1	29
Single Occ. <sup>(2)</sup>	—	10956	—	3809
Violators	12	—	12	—
<b>TOTAL</b>	<b>2288</b>	<b>11584</b>	<b>740</b>	<b>4152</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 3:00 - 4:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	103	10	21	1
Buses	105	210	0	140
Carpools <sup>(1)</sup>	4524	1217	1470	681
Vanpools	20	550	10	290
Single Occ. <sup>(2)</sup>	—	10956	—	3809
Violators	12	—	12	—
<b>TOTAL</b>	<b>4764</b>	<b>12943</b>	<b>1513</b>	<b>4921</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 3:00 - 4:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.0 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.5 %		1.6 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 10/06/04 at Winchester Boulevard I/C



# SANTA CLARA-85

Almaden Expressway to Route 280

## Northbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 7:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	36	2	20	1
Buses	4	0	2	0
Carpools <sup>(1)</sup>	1763	385	947	311
Vanpools	3	0	0	0
Single Occ. <sup>(2)</sup>	—	6187	—	2997
Violators	7	—	4	—
<b>TOTAL</b>	<b>1813</b>	<b>6574</b>	<b>973</b>	<b>3309</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 7:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	36	2	20	1
Buses	140	0	70	0
Carpools <sup>(1)</sup>	3633	789	1952	631
Vanpools	30	0	0	0
Single Occ. <sup>(2)</sup>	—	6187	—	2997
Violators	7	—	4	—
<b>TOTAL</b>	<b>3846</b>	<b>6978</b>	<b>2046</b>	<b>3629</b>

RATES	PEAK PERIOD <sup>(4)</sup> 7:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.4 %		0.4 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 10/28/04 at Union Avenue I/C

# SANTA CLARA-85

Route 280 to Almaden Expressway

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Year 2004	-	-	-
	Year 2003	-	-	-
	Wed May 1, 2002	6:00 - 9:00 AM	256	9.0%
	Tue Apr 17, 2001	6:00 - 9:00 AM	341	5.9%
	Tue May 2, 2000	6:00 - 9:00 AM	363	1.7%
	Thu Mar 11, 1999	6:30 - 9:00 AM	371	0.3%
	Tue Mar 3, 1998	6:00 - 9:00 AM	416	2.4%
	Thu Nov 6, 1997	6:00 - 9:00 AM	456	8.6%
	Wed May 01, 1996	6:30 - 9:00 AM	328	9.1%
	Thu Sept 14, 1995	7:00 - 9:00 AM	514	5.6%
	Wed Dec 7, 1994	7:00 - 9:00 AM	179	20.1%
<b>P.M. PEAK</b>	Wed Oct 6, 2004	3:00 - 6:00 PM	2288	0.5%
	Wed Oct 22, 2003	3:00 - 6:00 PM	2151	2.3%
	Wed Mar 13, 2002	3:00 - 6:00 PM	2866	3.4%
	Thu Apr 5, 2001	3:00 - 6:00 PM	2798	0.5%
	Tue Apr 18, 2000	3:00 - 6:00 PM	3056	0.5%
	Thu Mar 11, 1999	3:00 - 6:00 PM	2963	0.1%
	Thu Jun 4, 1998	3:00 - 6:00 PM	3004	0.1%
	Thu Feb 27, 1997	3:00 - 6:00 PM	2460	1.3%
	Tue Apr 30, 1996	3:00 - 6:00 PM	3167	7.0%
	Wed Sept 13, 1995	3:00 - 6:00 PM	2774	1.9%
	Thu Dec 15, 1994	3:00 - 5:00 PM	1856	1.3%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2004 for off-peak direction

# SANTA CLARA-85

Almaden Expressway to Route 280

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu Oct 28, 2004	7:00 - 9:00 AM	1813	0.4%
	Wed Oct 22, 2003	7:00 - 9:00 AM	2012	0.0%
	Wed Mar 27, 2002	6:00 - 9:00 AM	2572	4.6%
	Tues Oct 16, 2001	6:00 - 9:00 AM	3298	6.4%
	Wed Jun 7, 2000	6:00 - 9:00 AM	3555	9.9%
	Tue Oct 26, 1999	7:00 - 9:00 AM	2350	3.0%
	Wed May 13, 1998	6:00 - 9:00 AM	2801	12.2%
	Wed Nov 5, 1997	6:00 - 9:00 AM	3036	0.4%
	Wed Nov 20, 1996	6:45 - 9:00 AM	1840	0.2%
	Tue Apr 18, 1995	6:30 - 9:00 AM	2145	2.0%
	Tue Dec 6, 1994	7:00 - 9:00 AM	1927	1.9%
<b>P.M. PEAK</b>	Year 2004	-	-	-
	Year 2003	-	-	-
	Thu Apr 4, 2002	3:00 - 6:00 PM	1068	7.5%
	Tue Jun 12, 2001	3:00 - 6:00 PM	985	8.9%
	Tue Oct 17, 2000	3:00 - 6:00 PM	642	3.6%
	Tue Feb 23, 1999	3:00 - 6:00 PM	866	8.7%
	Wed Apr 8, 1998	3:00 - 6:00 PM	1097	4.4%
	Wed Oct 8, 1997	3:00 - 6:00 PM	895	0.3%
	Wed Sep 25, 1996	3:00 - 6:00 PM	1417	0.6%
	Tue Oct 3, 1995	3:00 - 6:00 PM	748	6.1%
	Thu Dec 8, 1994	3:00 - 5:00 PM	339	7.4%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
 (b) Evening period of operation from 3:00 to 7:00 PM.  
 (c) Data was not collected in 2004 for off-peak direction

# SANTA CLARA-85

Almaden Expressway to Route 101 (So. San Jose)

# Southbound - P.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	56	8	25	1
Buses	1	9	0	1
Carpools <sup>(1)</sup>	1985	457	617	95
Vanpools	4	35	1	2
Single Occ. <sup>(2)</sup>	—	7968	—	2886
Violators	4	—	1	—
<b>TOTAL</b>	<b>2050</b>	<b>8477</b>	<b>644</b>	<b>2985</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	56	8	25	1
Buses	35	315	0	35
Carpools <sup>(1)</sup>	4089	1006	1268	214
Vanpools	40	350	10	20
Single Occ. <sup>(2)</sup>	—	7968	—	2886
Violators	4	—	1	—
<b>TOTAL</b>	<b>4224</b>	<b>9647</b>	<b>1304</b>	<b>3156</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.0 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.2 %		0.2 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 10/14/04 at Blossom Hill Road Train Station

# SANTA CLARA-85

Route 101 (So. San Jose) to Almaden Expressway

## Northbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	19	7	2	1
Buses	0	2	0	1
Carpools <sup>(1)</sup>	1023	554	391	226
Vanpools	2	0	1	0
Single Occ. <sup>(2)</sup>	—	7140	—	2684
Violators	0	—	0	—
<b>TOTAL</b>	<b>1044</b>	<b>7703</b>	<b>394</b>	<b>2912</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	19	7	2	1
Buses	0	70	0	35
Carpools <sup>(1)</sup>	2094	1150	804	475
Vanpools	20	0	10	0
Single Occ. <sup>(2)</sup>	—	7140	—	2684
Violators	0	—	0	—
<b>TOTAL</b>	<b>2133</b>	<b>8367</b>	<b>816</b>	<b>3195</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.0 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.0 %		0.0 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 11/30/04 at Blossom Hill Road Train Station

# SANTA CLARA-85

Almaden Expressway to Route 101 (So. San Jose)

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Year 2004	-	-	-
	Year 2003	-	-	-
	Wed Apr 24, 2002	6:00 - 9:00 AM	675	0.3%
	Wed May 2, 2001	6:00 - 9:00 AM	595	1.7%
	Wed May 3, 2000	6:00 - 9:00 AM	635	7.1%
	Wed Feb 3, 1999	6:00 - 9:00 AM	739	0.0%
	Tue May 19, 1998	6:00 - 9:00 AM	602	0.0%
	Thu Dec 4, 1997	6:00 - 9:00 AM	282	12.8%
	Tue May 21, 1996	6:00 - 9:00 AM	324	13.0%
	Tue Sept 26, 1995	7:00 - 9:00 AM	240	8.8%
	Tue Dec 13, 1994	7:00 - 9:00 AM	240	17.5%
<b>P.M. PEAK</b>	Thu Oct 14, 2004	3:00 - 6:00 PM	2050	0.2%
	Thu Jun 5, 2003	3:00 - 6:00 PM	1652	0.6%
	Thu May 2, 2002	3:00 - 6:00 PM	1981	3.8%
	Wed Oct 3, 2001	3:00 - 6:00 PM	2418	0.2%
	Wed Oct 18, 2000	3:00 - 6:00 PM	2354	0.6%
	Tue May 18, 1999	3:00 - 6:00 PM	2112	2.5%
	Thu Dec 3, 1998	3:00 - 6:00 PM	4447	0.0%
	Thu Oct 16, 1997	3:00 - 6:00 PM	1754	3.6%
	Thu Sep 19, 1996	3:00 - 6:00 PM	960	5.4%
	Thu Oct 5, 1995	3:00 - 6:00 PM	960	5.4%
	Tue Dec 13, 1994	3:00 - 5:00 PM	531	7.7%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2004 for off-peak direction

# SANTA CLARA-85

Route 101 (So. San Jose) to Almaden Expressway

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Tue Nov 30, 2004	6:00 - 9:00 AM	1044	0.0%
	Thu Oct 23, 2003	7:00 - 9:00 AM	1035	0.0%
	Tue Mar 12, 2002	6:00 - 9:00 AM	939	2.6%
	Thu Apr 12, 2001	6:00 - 9:00 AM	1678	7.3%
	Thu Oct 5, 2000	7:00 - 9:00 AM	1222	5.2%
	Tue Oct 5, 1999	6:00 - 9:00 AM	1669	1.1%
	Wed Mar 25, 1998	6:00 - 9:00 AM	1482	0.4%
	Thu Mar 6, 1997	6:30 - 9:00 AM	1019	7.7%
	Thu Jun 13, 1996	6:00 - 9:00 AM	1151	8.4%
	Thu Sept 21, 1995	7:00 - 9:00 AM	981	2.5%
	Thu Dec 8, 1994	7:00 - 9:00 AM	618	3.7%
<b>P.M. PEAK</b>	Year 2004	-	-	-
	Year 2003	-	-	-
	Wed Apr 24, 2002	3:00 - 6:00 PM	976	5.0%
	Tue Oct 9, 2001	3:00 - 6:00 PM	814	8.6%
	Wed May 3, 2000	3:00 - 6:00 PM	784	5.6%
	Thu Nov 17, 1999	3:00 - 5:30 PM	826	6.5%
	Thu May 7, 1998	3:00 - 6:00 PM	1062	10.1%
	Tue Oct 30, 1997	3:00 - 6:00 PM	1245	0.2%
	Wed Mar 20, 1996	3:00 - 6:00 PM	907	9.0%
	Tue Sept 19, 1995	3:00 - 6:00 PM	717	8.9%
	Tue Dec 20, 1994	3:00 - 5:00 PM	557	16.5%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
 (b) Evening period of operation from 3:00 to 7:00 PM.  
 (c) Data was not collected in 2004 for off-peak direction

# SANTA CLARA-101

SM/SCL County Line to Ellis Street

## Southbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	61	0	33	0
Buses	1	1	0	1
Carpools <sup>(1)</sup>	1691	470	686	192
Vanpools	4	1	2	1
Single Occ. <sup>(2)</sup>	—	14312	—	5541
Violators	5	—	1	—
<b>TOTAL</b>	<b>1762</b>	<b>14784</b>	<b>722</b>	<b>5735</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	61	0	33	0
Buses	35	35	0	35
Carpools <sup>(1)</sup>	3473	1018	1406	413
Vanpools	40	10	20	10
Single Occ. <sup>(2)</sup>	—	14312	—	5541
Violators	5	—	1	—
<b>TOTAL</b>	<b>3614</b>	<b>15375</b>	<b>1460</b>	<b>5999</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.0 persons/veh	
Mixed Flow occupancy rate	1.0 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.1 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.3 %		0.1 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 11/17/04 at the San Antonio Road



# SANTA CLARA-101

SM/SCL County Line to Ellis Street

# Southbound - P.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	49	5	26	1
Buses	2	1	1	0
Carpools <sup>(1)</sup>	2356	1052	883	225
Vanpools	6	10	1	0
Single Occ. <sup>(2)</sup>	—	14220	—	4858
Violators	7	—	2	—
<b>TOTAL</b>	<b>2420</b>	<b>15288</b>	<b>913</b>	<b>5084</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	49	5	26	1
Buses	70	35	35	0
Carpools <sup>(1)</sup>	4922	2308	1852	498
Vanpools	60	100	10	0
Single Occ. <sup>(2)</sup>	—	14220	—	4858
Violators	7	—	2	—
<b>TOTAL</b>	<b>5108</b>	<b>16668</b>	<b>1925</b>	<b>5357</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.3 %		0.2 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 10/27/04 at the San Antonio Road I/C

# SANTA CLARA-101

Ellis Street to SM/SCL County Line

## Northbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	42	24	18	12
Buses	1	23	1	5
Carpools <sup>(1)</sup>	1589	596	680	267
Vanpools	4	0	2	0
Single Occ. <sup>(2)</sup>	—	12962	—	4697
Violators	5	—	2	—
<b>TOTAL</b>	<b>1641</b>	<b>13605</b>	<b>703</b>	<b>4981</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	42	24	18	12
Buses	35	805	35	175
Carpools <sup>(1)</sup>	3222	1255	1378	573
Vanpools	40	0	20	0
Single Occ. <sup>(2)</sup>	—	12962	—	4697
Violators	5	—	2	—
<b>TOTAL</b>	<b>3344</b>	<b>15046</b>	<b>1453</b>	<b>5457</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.0 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.3 %		0.3 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 11/02/04 at the San Antonio Road I/C

# SANTA CLARA-101

Ellis Street to SM/SCL County Line

## Northbound - P.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 5:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	23	2	17	1
Buses	2	5	0	1
Carpools <sup>(1)</sup>	1296	662	830	396
Vanpools	9	4	5	1
Single Occ. <sup>(2)</sup>	—	10261	—	5134
Violators	39	—	19	—
<b>TOTAL</b>	<b>1369</b>	<b>10934</b>	<b>871</b>	<b>5533</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 5:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	23	2	17	1
Buses	70	175	0	35
Carpools <sup>(1)</sup>	2650	1364	1700	802
Vanpools	90	40	50	10
Single Occ. <sup>(2)</sup>	—	10261	—	5134
Violators	39	—	19	—
<b>TOTAL</b>	<b>2872</b>	<b>11842</b>	<b>1786</b>	<b>5982</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 5:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	2.8 %		2.2 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 12/02/04 at the San Antonio Road I/C

# SANTA CLARA-101

SM/SCL County Line to Ellis Street

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Wed Nov 17, 2004	6:00 - 9:00 AM	1762	0.3%
	Thu Oct 30, 2003	6:00 - 9:00 AM	1970	6.6%
	Wed May 15, 2002	6:00 - 9:00 AM	1949	6.6%
	Wed Mar 21, 2001	6:00 - 9:00 AM	2710	0.8%
	Wed Sep 13, 2000	6:00 - 9:00 AM	2823	10.5%
	Wed Apr 28, 1999	6:00 - 9:00 AM	2817	3.3%
	Thu Mar 12, 1998	6:00 - 9:00 AM	2885	0.6%
	Tue Dec 2, 1997	6:00 - 9:00 AM	2773	2.1%
	Thu Apr 25, 1996	6:30 - 9:00 AM	3742	1.5%
	Thu Jun 8, 1995	6:00 - 9:00 AM	2973	1.6%
	Thu May 5, 1994	6:00 - 9:00 AM	2684	4.8%
	Thu Jun 24, 1993	6:00 - 9:00 AM	1629	8.0%
<b>P.M. PEAK</b>	Wed Oct 27, 2004	3:00 - 6:00 PM	2420	0.3%
	Tue Oct 28, 2003	3:00 - 5:45 PM	2608	1.4%
	Tue May 14, 2002	3:00 - 6:00 PM	2119	0.7%
	Wed Oct 24, 2001	3:00 - 6:00 PM	2935	4.4%
	Thu Mar 25, 1999	3:00 - 6:00 PM	3037	1.2%
	Thu Mar 25, 1999	3:00 - 6:00 PM	3037	1.2%
	Tue Mar 17, 1998	3:00 - 6:00 PM	2406	0.7%
	Wed Oct 29, 1997	3:00 - 6:00 PM	2666	0.0%
	Wed Oct 2 1996	3:00 - 6:00 PM	2836	0.6%
	Wed Oct 4 1995	3:00 - 6:00 PM	2591	3.9%
	Thu Apr 21, 1994	3:00 - 7:00 PM	4979	14.7%
	Wed May 12, 1993	3:00 - 6:00 PM	1995	13.4%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.

# SANTA CLARA-101

Ellis Street to SM/SCL County Line

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Tue Nov 2, 2004	6:00 - 9:00 AM	1641	0.3%
	Thu May 22, 2003	6:00 - 9:00 AM	2132	5.8%
	Wed Sept 25, 2002	6:45 - 9:00 AM	1479	2.4%
	Thu Oct 4, 2001	6:00 - 9:00 AM	1942	6.0%
	Thu May 18, 2000	6:00 - 9:00 AM	2047	5.1%
	Thu Nov 18, 1999	6:30 - 9:00 AM	1745	2.5%
	Thu Mar 26, 1998	6:00 - 9:00 AM	1986	0.1%
	Tue Dec 2, 1997	7:00 - 9:00 AM	1720	3.8%
	Wed Jun 12, 1996	6:00 - 9:00 AM	3249	0.7%
	Thu May 4, 1995	6:00 - 9:00 AM	2070	5.9%
	Thu Apr 21, 1994	6:00 - 9:00 AM	3114	3.5%
	Wed May 12, 1993	6:00 - 9:00 AM	1509	7.7%
<b>P.M. PEAK</b>	Thu Dec 2, 2004	3:00 - 5:00 PM	1369	2.8%
	Tue Jun 3, 2003	3:00 - 6:00 PM	2635	7.2%
	Thu Jun 6, 2002	3:00 - 6:00 PM	3064	2.1%
	Wed Oct 17, 2001	3:00 - 6:00 PM	2523	3.2%
	Tue Nov 7, 2000	3:00 - 6:00 PM	3032	4.6%
	Tue Apr 27, 1999	3:00 - 6:00 PM	3034	1.5%
	Wed Mar 11, 1998	3:00 - 6:00 PM	2464	1.3%
	Thu Apr 24, 1997	3:00 - 6:00 PM	3693	0.2%
	Tue Nov 12, 1996	3:00 - 6:00 PM	3151	0.1%
	Wed Mar 15, 1995	3:00 - 6:00 PM	4260	3.4%
	Wed Sep 28, 1994	3:00 - 6:00 PM	4122	2.4%
	Thu Jun 3, 1993	3:00 - 6:00 PM	2831	7.5%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.

# SANTA CLARA-101

Ellis Street to Guadalupe Parkway

## Southbound - P.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 5:30 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	37	4	14	3
Buses	1	3	0	1
Carpools <sup>(1)</sup>	2133	721	838	274
Vanpools	10	0	2	0
Single Occ. <sup>(2)</sup>	—	10969	—	4581
Violators	9	—	1	—
<b>TOTAL</b>	<b>2190</b>	<b>11697</b>	<b>855</b>	<b>4859</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 5:30 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	37	4	14	3
Buses	35	105	0	35
Carpools <sup>(1)</sup>	4366	1541	1729	592
Vanpools	100	0	20	0
Single Occ. <sup>(2)</sup>	—	10969	—	4581
Violators	9	—	1	—
<b>TOTAL</b>	<b>4547</b>	<b>12619</b>	<b>1764</b>	<b>5211</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 5:30 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.4 %		0.1 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 11/16/04 at the San Tomas Expressway I/C

# SANTA CLARA-101

Guadalupe Parkway to Ellis Street

## Northbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	37	5	16	2
Buses	1	2	0	0
Carpools <sup>(1)</sup>	1748	541	516	269
Vanpools	1	0	0	0
Single Occ. <sup>(2)</sup>	—	14128	—	5336
Violators	12	—	1	—
<b>TOTAL</b>	<b>1799</b>	<b>14676</b>	<b>533</b>	<b>5607</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	37	5	16	2
Buses	35	70	0	0
Carpools <sup>(1)</sup>	3606	1154	1068	574
Vanpools	10	0	0	0
Single Occ. <sup>(2)</sup>	—	14128	—	5336
Violators	12	—	1	—
<b>TOTAL</b>	<b>3700</b>	<b>15357</b>	<b>1085</b>	<b>5912</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.0 persons/veh	
Mixed Flow occupancy rate	1.0 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.1 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.7 %		0.2 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 11/16/04 at the Fair Oaks Avenue I/C

# SANTA CLARA-101

Ellis Street to Guadalupe Parkway

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Year 2004	-	-	-
	Year 2003	-	-	-
	Tue Dec 3, 2002	6:00 - 9:00 AM	668	2.2%
	Tue Jun 5, 2001	6:00 - 9:00 AM	765	2.1%
	Thu Apr 20, 2000	6:00 - 9:00 AM	916	3.8%
	Thur Oct 21, 1999	7:00 - 9:00 AM	739	1.8%
	Thu Apr 9, 1998	6:00 - 9:00 AM	1163	4.3%
	Wed Dec 3, 1997	6:00 - 9:00 AM	1272	8.6%
	Thu Nov 7, 1996	6:45 - 9:00 AM	2212	1.1%
	Wed Oct 4, 1995	7:00 - 9:00 AM	1057	4.5%
	Wed Nov 2, 1994	6:30 - 9:00 AM	1124	20.7%
	Tue Jun 15, 1993	6:00 - 9:00 AM	664	2.9%
<b>P.M. PEAK</b>	Tue Nov 16, 2004	3:00 - 5:30 PM	2190	0.4%
	Thu May 29, 2003	3:00 - 6:00 PM	3454	3.6%
	Thu Apr 11, 2002	3:00 - 6:00 PM	2912	1.2%
	Thu Mar 29, 2001	3:00 - 6:00 PM	3903	3.1%
	Wed Nov 15, 2000	3:00 - 5:30 PM	3077	2.7%
	Wed Oct 20, 1999	3:00 - 6:00 PM	3954	2.3%
	Thu May 14, 1998	4:00 - 6:30 PM	3124	0.2%
	Tue Apr 22, 1997	3:00 - 6:00 PM	3268	1.0%
	Wed May 22, 1996	3:00 - 6:00 PM	3832	1.3%
	Thu Apr 20, 1995	3:00 - 7:00 PM	5831	1.5%
	Wed Nov 2, 1994	3:00 - 5:15 PM	2698	9.5%
	Wed Oct 6, 1993	3:00 - 6:00 PM	3056	7.0%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2004 for off-peak direction



# SANTA CLARA-101

Guadalupe Parkway to Ellis Street

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Tue Nov 16, 2004	6:00 - 9:00 AM	1799	<b>0.7%</b>
	Wed May 7, 2003	6:00 - 9:00 AM	2142	<b>0.6%</b>
	Thu Apr 4, 2002	6:00 - 9:00 AM	1646	<b>7.5%</b>
	Wed Sep 26, 2001	6:00 - 9:00 AM	1607	<b>0.8%</b>
	Tue Apr 4, 2000	6:00 - 9:00 AM	1527	<b>2.8%</b>
	Wed Oct 20, 1999	7:00 - 9:00 AM	1299	<b>0.5%</b>
	Thu Oct 1, 1998	7:00 - 9:00 AM	1268	<b>1.6%</b>
	Thu Nov 20, 1997	6:00 - 9:00 AM	1700	<b>0.0%</b>
	Thu Sep 26, 1996	7:00 - 9:00 AM	1765	<b>0.7%</b>
	Thu Oct 5, 1995	7:00 - 9:00 AM	1594	<b>3.8%</b>
	Tue Nov 1, 1994	6:30 - 9:00 AM	1861	<b>4.8%</b>
	Wed Oct 6, 1993	7:00 - 9:00 AM	977	<b>14.4%</b>
<b>P.M. PEAK</b>	Year 2004	-	-	-
	Year 2003	-	-	-
	Wed May 22, 2002	3:00 - 6:00 PM	1487	<b>3.8%</b>
	Wed May 10, 2000	3:00 - 6:00 PM	1684	<b>0.3%</b>
	Tue Jun 8, 1999	3:00 - 6:00 PM	1765	<b>2.2%</b>
	Thu May 21, 1998	3:00 - 6:00 PM	2066	<b>4.5%</b>
	Thu Apr 10, 1997	3:00 - 6:00 PM	1563	<b>1.5%</b>
	Tue May 21, 1996	3:00 - 6:00 PM	2126	<b>4.2%</b>
	Tue Oct 17, 1995	3:00 - 6:00 PM	1910	<b>6.0%</b>
	Tue Dec 6, 1994	3:00 - 5:00 PM	708	<b>9.3%</b>
	Tue Jun 8, 1993	3:00 - 6:00 PM	1765	<b>2.2%</b>

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
 (b) Evening period of operation from 3:00 to 7:00 PM.  
 (c) Data was not collected in 2004 for off-peak direction

# SANTA CLARA-101

Guadalupe Parkway to Route 280/680 I/C

## Southbound - P.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 5:30 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	31	4	14	1
Buses	4	1	1	0
Carpools <sup>(1)</sup>	1897	492	730	232
Vanpools	2	1	0	0
Single Occ. <sup>(2)</sup>	—	10845	—	4297
Violators	13	—	0	—
<b>TOTAL</b>	<b>1947</b>	<b>11343</b>	<b>745</b>	<b>4530</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 5:30 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	31	4	14	1
Buses	140	35	35	0
Carpools <sup>(1)</sup>	3955	1047	1503	490
Vanpools	20	10	0	0
Single Occ. <sup>(2)</sup>	—	10845	—	4297
Violators	13	—	0	—
<b>TOTAL</b>	<b>4159</b>	<b>11941</b>	<b>1552</b>	<b>4788</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 5:30 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.7 %		0.0 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 11/09/04 at the McKee Road I/C

# SANTA CLARA-101

Route 280/680 I/C to Guadalupe Parkway

## Northbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	48	2	19	1
Buses	9	0	2	0
Carpools <sup>(1)</sup>	3484	357	1276	220
Vanpools	13	0	6	0
Single Occ. <sup>(2)</sup>	—	16178	—	5572
Violators	7	—	1	—
<b>TOTAL</b>	<b>3561</b>	<b>16537</b>	<b>1304</b>	<b>5793</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	48	2	19	1
Buses	315	0	70	0
Carpools <sup>(1)</sup>	7125	756	2629	463
Vanpools	130	0	60	0
Single Occ. <sup>(2)</sup>	—	16178	—	5572
Violators	7	—	1	—
<b>TOTAL</b>	<b>7625</b>	<b>16936</b>	<b>2779</b>	<b>6036</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.0 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.2 %		0.1 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 12/02/04 at McKee Road I/C

# SANTA CLARA-101

Guadalupe Parkway to Route 280/680 I/C

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Year 2004	-	-	-
	Year 2003	-	-	-
	Thu May 30, 2002	6:00 - 9:00 AM	339	3.5%
	Thu Oct 18, 2001	6:00 - 9:00 AM	495	3.0%
	Thu Jun 8, 2000	6:00 - 9:00 AM	485	11.8%
	Wed Mar 24, 1999	6:00 - 9:00 AM	378	9.5%
	Thu Apr 2, 1998	6:00 - 9:00 AM	436	6.7%
	Wed Mar 5, 1997	6:30 - 9:00 AM	438	2.1%
	Thu Oct 24, 1996	7:00 - 9:00 AM	550	0.4%
	Wed Oct 18, 1995	7:00 - 9:00 AM	172	3.5%
	Tue Nov 8, 1994	6:30 - 9:00 AM	422	18.5%
<b>P.M. PEAK</b>	Tue Nov 9, 2004	3:00 - 5:30 PM	1947	0.7%
	Thu Apr 3, 2003	3:00 - 6:00 PM	1860	0.5%
	Thu Jun 13, 2002	3:00 - 6:00 PM	2342	1.3%
	Tue Mar 27, 2001	3:00 - 6:00 PM	2840	2.6%
	Thu May 11, 2000	3:00 - 6:00 PM	3049	1.7%
	Tue Dec 14, 1999	3:00 - 5:30 PM	2418	0.4%
	Thu Sep 17, 1998	3:00 - 6:00 PM	3499	2.5%
	Tue Sept 23, 1997	3:00 - 6:00 PM	2965	0.5%
	Wed Oct 23, 1996	3:00 - 6:00 PM	3230	0.3%
	Wed Apr 19, 1995	3:00 - 7:00 PM	3957	2.9%
	Thu Nov 3, 1994	3:00 - 5:15 PM	1856	1.5%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2004 for off-peak direction

# SANTA CLARA-101

Route 280/680 I/C to Guadalupe Parkway

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu Dec 2, 2004	6:00 - 9:00 AM	3561	0.2%
	Thu Jun 12, 2003	6:00 - 9:00 AM	3794	2.6%
	Thu Apr 11, 2002	6:30 - 9:00 AM	3438	2.7%
	Thu May 11, 2000	6:00 - 9:00 AM	4839	2.4%
	Wed Apr 14, 1999	6:00 - 9:00 AM	4717	2.9%
	Thu Dec 10, 1998	6:00 - 9:00 AM	4589	1.8%
	Wed Sep 24, 1997	7:00 - 9:00 AM	2994	2.4%
	Wed May 22, 1996	6:00 - 9:00 AM	5386	0.8%
	Thu Nov 2, 1995	6:00 - 9:00 AM	5061	0.5%
	Thu Nov 3, 1994	6:30 - 9:00 AM	3777	2.1%
<b>P.M. PEAK</b>	Year 2004	-	-	-
	Year 2003	-	-	-
	Thu May 23, 2002	3:00 - 6:00 PM	1264	1.6%
	Thu Apr 27, 2000	3:00 - 6:00 PM	1318	3.7%
	Tue Dec 7, 1999	3:00 - 5:00 PM	1314	4.3%
	Wed Nov 4, 1998	3:00 - 5:30 PM	1393	0.7%
	Wed Apr 30, 1997	3:00 - 6:00 PM	2171	0.2%
	Thu Nov 14, 1996	3:00 - 6:00 PM	1743	0.0%
	Wed Oct 11, 1995	3:00 - 6:00 PM	1370	6.0%
	Tue Nov 8, 1994	3:00 - 5:00 PM	1272	3.6%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2004 for off-peak direction

# SANTA CLARA-101

Route 280/680 I/C to Bernal Road

## Southbound - P.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 5:30 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	23	8	13	4
Buses	1	1	0	1
Carpools <sup>(1)</sup>	1713	785	711	321
Vanpools	5	1	3	0
Single Occ. <sup>(2)</sup>	—	8847	—	4032
Violators	5	—	3	—
<b>TOTAL</b>	<b>1747</b>	<b>9642</b>	<b>730</b>	<b>4358</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 5:30 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	23	8	13	4
Buses	35	35	0	35
Carpools <sup>(1)</sup>	3687	1673	1513	672
Vanpools	50	10	30	0
Single Occ. <sup>(2)</sup>	—	8847	—	4032
Violators	5	—	3	—
<b>TOTAL</b>	<b>3800</b>	<b>10573</b>	<b>1559</b>	<b>4743</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 5:30 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.2 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.3 %		0.4 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 11/23/04 at the Hellyer Avenue I/C

# SANTA CLARA-101

Bernal Road to Route 280/680 I/C

# Northbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	41	0	18	0
Buses	2	3	1	2
Carpools <sup>(1)</sup>	1596	501	753	159
Vanpools	8	0	4	0
Single Occ. <sup>(2)</sup>	—	14207	—	5143
Violators	21	—	11	—
<b>TOTAL</b>	<b>1668</b>	<b>14711</b>	<b>787</b>	<b>5304</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	41	0	18	0
Buses	70	105	35	70
Carpools <sup>(1)</sup>	3248	1019	1550	325
Vanpools	80	0	40	0
Single Occ. <sup>(2)</sup>	—	14207	—	5143
Violators	21	—	11	—
<b>TOTAL</b>	<b>3460</b>	<b>15331</b>	<b>1654</b>	<b>5538</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.0 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.1 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.3 %		1.4 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 12/14/04 at the Hellyer Avenue I/C

# SANTA CLARA-101

Route 280/680 I/C to Bernal Road

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Year 2004	-	-	-
	Year 2003	-	-	-
	Thu Jun 6, 2002	6:00 - 9:00 AM	730	5.6%
	Thu Apr 19, 2001	6:00 - 9:00 AM	746	5.4%
	Wed Oct 4, 2000	7:00 - 9:00 AM	413	5.6%
	Wed Nov 3, 1999	6:00 - 9:00 AM	660	0.9%
	Thur May 6, 1998	6:00 - 9:00 AM	576	0.7%
	Thu May 22, 1997	6:30 - 9:00 AM	473	6.1%
	Thu Oct 17, 1996	7:00 - 9:00 AM	538	0.7%
	Tue Oct 24, 1995	7:00 - 9:00 AM	538	6.5%
	Tue Nov 15, 1994	6:45 - 9:00 AM	490	11.4%
	Thu Jun 17, 1993	6:00 - 9:00 AM	737	3.4%
<b>P.M. PEAK</b>	Tue Nov 23, 2004	3:00 - 5:30 PM	1747	0.3%
	Thu May 1, 2003	3:00 - 6:00 PM	2204	1.6%
	Tue Mar 19, 2002	3:00 - 6:00 PM	1496	2.0%
	Wed May 16, 2001	3:00 - 6:00 PM	1732	0.8%
	Tue Sep 19, 2000	3:00 - 6:00 PM	1898	0.7%
	Tue Mar 16, 1999	3:00 - 6:30 PM	702	4.6%
	Wed Apr 22, 1998	3:00 - 6:00 PM	1498	0.1%
	Tue Oct 7, 1997	3:00 - 6:00 PM	1843	0.1%
	Wed Dec 11, 1996	3:00 - 5:30 PM	1426	3.6%
	Wed May 3, 1995	3:00 - 7:00 PM	2181	11.0%
	Wed Nov 30, 1994	3:00 - 5:00 PM	1116	9.2%
	Thu May 20, 1993	3:00 - 6:00 PM	2154	5.7%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2004 for off-peak direction



# SANTA CLARA-101

Bernal Road to Route 280/680 I/C

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Tue Dec 14, 2004	6:00 - 9:00 AM	1668	1.3%
	Tue Jun 3, 2003	6:00 - 9:00 AM	2620	1.0%
	Thu May 16, 2002	6:00 - 9:00 AM	1859	2.7%
	Tue Apr 3, 2001	6:00 - 9:00 AM	2258	3.5%
	Thu Nov 30, 2000	7:00 - 9:00 AM	1503	2.3%
	Tue Dec 7, 1999	6:30 - 9:00 AM	2550	4.9%
	Tue Dec 8, 1998	6:00 - 9:00 AM	2663	4.8%
	Wed May 21, 1997	6:30 - 9:00 AM	1932	0.9%
	Thu Jun 6, 1996	6:00 - 9:00 AM	2225	0.2%
	Tue Apr 18, 1995	6:00 - 9:00 AM	1614	0.9%
	Wed Nov 9, 1994	6:45 - 9:00 AM	1668	1.6%
	Tue May 25, 1993	6:00 - 9:00 AM	1857	2.7%
<b>P.M. PEAK</b>	Year 2004	-	-	-
	Year 2003	-	-	-
	Wed Mar 27, 2002	3:00 - 6:00 PM	1156	3.1%
	Tue May 15, 2001	3:00 - 6:00 PM	1155	5.4%
	Wed Apr 5, 2000	3:00 - 6:00 PM	1169	5.9%
	Wed May 26, 1999	3:00 - 6:00 PM	1255	5.1%
	Thu Apr 23, 1998	3:00 - 6:00 PM	995	4.6%
	Wed Mar 12, 1997	3:00 - 6:00 PM	803	0.4%
	Wed Dec 4, 1996	3:00 - 5:30 PM	777	3.3%
	Thu Oct 19, 1995	3:00 - 6:00 PM	794	2.3%
	Wed Dec 7, 1994	3:00 - 5:00 PM	1156	3.4%
	Wed Jun 9, 1993	3:00 - 6:00 PM	1160	8.4%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2004 for off-peak direction

# SANTA CLARA-101

Bernal Road to Cochrane Road

## Southbound - P.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 5:30 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	14	12	7	3
Buses	0	1	0	1
Carpools <sup>(1)</sup>	1456	644	586	248
Vanpools	0	3	0	1
Single Occ. <sup>(2)</sup>	—	8348	—	3545
Violators	23	—	3	—
<b>TOTAL</b>	1493	9008	596	3798

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 5:30 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	14	12	7	3
Buses	0	35	0	35
Carpools <sup>(1)</sup>	2975	1350	1193	519
Vanpools	0	30	0	10
Single Occ. <sup>(2)</sup>	—	8348	—	3545
Violators	23	—	3	—
<b>TOTAL</b>	3012	9775	1203	4112

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 5:30 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.0 persons/veh		2.0 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.5 %		0.5 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 11/03/04 at Coyote Creek Golf Drive I/C

# SANTA CLARA-101

Cochrane Road to Bernal Road

## Northbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	21	13	5	6
Buses	7	4	3	0
Carpools <sup>(1)</sup>	2084	288	920	109
Vanpools	4	0	1	0
Single Occ. <sup>(2)</sup>	—	11369	—	4127
Violators	4	—	0	—
<b>TOTAL</b>	<b>2120</b>	<b>11674</b>	<b>929</b>	<b>4242</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	21	13	5	6
Buses	245	140	105	0
Carpools <sup>(1)</sup>	4318	619	1925	242
Vanpools	40	0	10	0
Single Occ. <sup>(2)</sup>	—	11369	—	4127
Violators	4	—	0	—
<b>TOTAL</b>	<b>4628</b>	<b>12141</b>	<b>2045</b>	<b>4375</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.2 persons/veh		2.2 persons/veh	
Mixed Flow occupancy rate	1.0 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.2 %		0.0 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 11/09/04 at Coyote Creek Golf Drive I/C

# SANTA CLARA-101

Bernal Road to Cochrane Road

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Year 2004	-	-	-
	Year 2003	-	-	-
<b>P.M. PEAK</b>	Wed Nov 3, 2004	3:00 - 5:30 PM	1493	1.5%
	Wed May 21, 2003	3:00 - 6:00 PM	1775	1.1%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2004 for off-peak period

# SANTA CLARA-101

Cochrane Road to Bernal Road

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Tue Nov 9, 2004	6:00 - 9:00 AM	2120	<b>0.2%</b>
	Tue Oct 28, 2003	6:00 - 9:00 AM	1720	<b>0.0%</b>
<b>P.M. PEAK</b>	Year 2004	-	-	-
	Year 2003	-	-	-

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2004 for off-peak direction

# SANTA CLARA-237

Route 880/237 I/C to Mathilda Avenue

## Westbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	55	2	22	0
Buses	4	7	2	0
Carpools <sup>(1)</sup>	1332	156	549	74
Vanpools	3	0	1	0
Single Occ. <sup>(2)</sup>	—	12611	—	4428
Violators	13	—	1	—
<b>TOTAL</b>	<b>1407</b>	<b>12776</b>	<b>575</b>	<b>4502</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	55	2	22	0
Buses	140	245	70	0
Carpools <sup>(1)</sup>	2725	335	1138	155
Vanpools	30	0	10	0
Single Occ. <sup>(2)</sup>	—	12611	—	4428
Violators	13	—	1	—
<b>TOTAL</b>	<b>2963</b>	<b>13193</b>	<b>1241</b>	<b>4583</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.2 persons/veh	
Mixed Flow occupancy rate	1.0 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.1 persons/veh		1.1 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.9 %		0.2 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 11/18/04 at the Zanker Road I/C

# SANTA CLARA-237

McCarthy Blvd to Mathilda Avenue

## Westbound - P.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 5:15 PM		PEAK HOUR 3:00 - 4:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	8	0	4	0
Buses	0	0	0	0
Carpools <sup>(1)</sup>	432	549	178	263
Vanpools	0	0	0	0
Single Occ. <sup>(2)</sup>	—	7677	—	3460
Violators	53	—	26	—
<b>TOTAL</b>	<b>493</b>	<b>8226</b>	<b>208</b>	<b>3723</b>
PERSONS	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	8	0	4	0
Buses	0	0	0	0
Carpools <sup>(1)</sup>	890	1142	367	548
Vanpools	0	0	0	0
Single Occ. <sup>(2)</sup>	—	7677	—	3460
Violators	53	—	26	—
<b>TOTAL</b>	<b>951</b>	<b>8819</b>	<b>397</b>	<b>4008</b>
RATES	HOV Lane		Mixed Flow Lanes	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	1.9 persons/veh		1.9 persons/veh	
Mixed Flow occupancy rate		1.1 persons/veh		1.1 persons/veh
Overall occupancy (incl. buses)	1.1 persons/veh		1.1 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	10.8 %		12.5 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 12/09/04 at the Zanker Road I/C

# SANTA CLARA-237

Mathilda Avenue to Route 237/880 I/C

## Eastbound - P.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 5:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	26	3	11	2
Buses	6	4	4	0
Carpools <sup>(1)</sup>	1278	226	603	94
Vanpools	3	1	1	0
Single Occ. <sup>(2)</sup>	—	6811	—	3858
Violators	11	—	5	—
<b>TOTAL</b>	<b>1324</b>	<b>7045</b>	<b>624</b>	<b>3954</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 5:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	26	3	11	2
Buses	210	140	140	0
Carpools <sup>(1)</sup>	2623	503	1234	214
Vanpools	30	10	10	0
Single Occ. <sup>(2)</sup>	—	6811	—	3858
Violators	11	—	5	—
<b>TOTAL</b>	<b>2900</b>	<b>7467</b>	<b>1400</b>	<b>4074</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 5:00 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.2 persons/veh		2.2 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.8 %		0.8 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 12/01/04 at the Zanker Road I/C



# SANTA CLARA-237

McCarthy Blvd to Mathilda Avenue

## Violation History

Westbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu Nov 18, 2004	6:00 - 9:00 AM	1407	0.9%
	Thu May 29, 2003	6:00 - 9:00 AM	1644	0.0%
	Thu May 2, 2002	6:00 - 9:00 AM	1577	3.7%
	Thu May 3, 2001	6:00 - 9:00 AM	1916	5.3%
	Wed Nov 15, 2000	6:00 - 9:00 AM	2055	2.7%
	Tue Nov 9, 1999	6:30 - 9:00 AM	1917	1.9%
	Tue Sep 29, 1998	7:00 - 9:00 AM	1770	3.3%
	Tue May 13, 1997	6:30 - 9:00 AM	2015	2.8%
	Thu May 30, 1996	6:00 - 9:00 AM	3274	0.5%
	Wed Oct 25, 1995	7:00 - 9:00 AM	1308	2.6%
<b>P.M. PEAK</b>	Thu Dec 9, 2004	3:00 - 5:15 PM	493	10.8%
	Thu Oct 9, 2003	3:00 - 6:00 PM	698	5.6%
	Wed May 15, 2002	3:00 - 6:00 PM	773	2.2%
	Wed May 30, 2001	3:00 - 6:00 PM	1102	3.1%
	Wed Sep 13, 2000	3:00 - 6:00 PM	1155	2.5%
	Wed Mar 3, 1999	3:00 - 7:00 PM	1260	0.6%
	Tue Sep 29, 1998	3:00 - 6:00 PM	1658	2.8%
	Tue Oct 14, 1997	3:00 - 6:00 PM	1866	0.8%
	Wed Jun 12, 1996	3:00 - 6:00 PM	1593	0.9%
	Tue Oct 24, 1995	3:00 - 6:00 PM	1072	7.3%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.

# SANTA CLARA-237

Mathilda Avenue to Route 880/237 I/C

## Violation History

Eastbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Year 2004	-	-	-
	Year 2003	-	-	-
	Thu Oct 31, 2002	7:00 - 9:00 AM	561	12.1%
	Thu Mar 29, 2001	6:00 - 9:00 AM	759	15.0%
	Thu May 25, 2000	6:00 - 9:00 AM	536	5.8%
	Thu Oct 14, 1999	6:00 - 9:00 AM	769	11.4%
	Thu Oct 8, 1998	7:00 - 9:00 AM	750	3.2%
	Wed Oct 29, 1997	6:30 - 9:00 AM	723	0.1%
	Thu Nov 14, 1996	6:30 - 9:00 AM	845	7.5%
	Thu Oct 26, 1995	7:00 - 9:00 AM	495	2.2%
<b>P.M. PEAK</b>	Wed Dec 1, 2004	3:00 - 5:00 PM	1324	0.8%
	Tue Oct 14, 2003	3:00 - 6:00 PM	1296	0.9%
	Wed May 1, 2002	3:00 - 6:00 PM	1396	1.9%
	Thu May 3, 2001	3:00 - 6:00 PM	1255	2.1%
	Tue Mar 21, 2000	4:00 - 7:00 PM	2181	0.4%
	Thu Nov 18, 1999	3:00 - 6:00 PM	2535	3.0%
	Thu Oct 15, 1998	3:00 - 6:00 PM	2418	5.0%
	Tue Oct 28, 1997	3:00 - 6:00 PM	2835	2.7%
	Thu Oct 17, 1996	3:00 - 6:00 PM	3682	0.3%
	Wed Oct 25, 1995	3:00 - 6:00 PM	1827	5.8%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2004 for off-peak direction

# SANTA CLARA-280

Magdalena Avenue to Leland Avenue

# Southbound - P.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 5:30 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	52	7	29	4
Buses	2	11	1	2
Carpools <sup>(1)</sup>	1719	642	868	149
Vanpools	2	1	0	0
Single Occ. <sup>(2)</sup>	—	11223	—	4418
Violators	42	—	9	—
<b>TOTAL</b>	<b>1817</b>	<b>11884</b>	<b>907</b>	<b>4573</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 5:30 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	52	7	29	4
Buses	70	385	35	70
Carpools <sup>(1)</sup>	3567	1351	1803	318
Vanpools	20	10	0	0
Single Occ. <sup>(2)</sup>	—	11223	—	4418
Violators	42	—	9	—
<b>TOTAL</b>	<b>3751</b>	<b>12976</b>	<b>1876</b>	<b>4810</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 5:30 PM		PEAK HOUR 4:00 - 5:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	2.3 %		1.0 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 11/02/04 at the Wolfe Road I/C

# SANTA CLARA-280

Leland Avenue to Magdalena Avenue

## Northbound - A.M.

Typical data for 2004 <sup>(5)</sup>

	PEAK PERIOD <sup>(4)</sup>		PEAK HOUR	
	6:00 - 9:00 AM		7:00 - 8:00 AM	
VEHICLES	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	28	7	10	4
Buses	3	9	2	3
Carpools <sup>(1)</sup>	2127	253	719	146
Vanpools	2	0	2	0
Single Occ. <sup>(2)</sup>	—	10145	—	3742
Violators	53	—	38	—
<b>TOTAL</b>	<b>2213</b>	<b>10414</b>	<b>771</b>	<b>3895</b>
PERSONS	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	28	7	10	4
Buses	105	315	70	105
Carpools <sup>(1)</sup>	4408	551	1529	329
Vanpools	20	0	20	0
Single Occ. <sup>(2)</sup>	—	10145	—	3742
Violators	53	—	38	—
<b>TOTAL</b>	<b>4614</b>	<b>11018</b>	<b>1667</b>	<b>4180</b>
RATES				
HOV Lane occupancy rate	2.1 persons/veh		2.2 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	2.4 %		4.9 %	

**NOTES:** 1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 10/07/04 at the Wolfe Road I/C

# SANTA CLARA-280

Magdalena Avenue to Leland Avenue

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Year 2004	-	-	-
	Year 2003	-	-	-
	Thu Apr 18, 2002	6:30 - 9:00 AM	372	4.6%
	Thu Apr 5, 2001	6:00 - 9:00 AM	524	2.7%
	Thu Apr 13, 2000	6:00 - 9:00 AM	474	9.3%
	Tue Apr 20, 1999	6:00 - 9:00 AM	608	0.3%
	Thu Jun 4, 1998	6:00 - 9:00 AM	781	0.1%
	Wed Oct 22, 1997	7:00 - 9:00 AM	592	0.0%
	Wed Oct 9, 1996	7:00 - 9:00 AM	1087	1.4%
	Wed Nov 1, 1995	6:30 - 9:00 AM	566	4.9%
	Wed Nov 30, 1994	7:00 - 9:00 AM	989	1.6%
	Thu Dec 9, 1993	7:00 - 9:00 AM	469	4.5%
<b>P.M. PEAK</b>	Tue Nov 2, 2004	3:00 - 5:30 PM	1817	2.3%
	Thu Jun 12, 2003	3:00 - 5:30 PM	1756	1.0%
	Thu Sep 19, 2002	3:00 - 6:00 PM	1933	0.6%
	Thu Oct 11, 2001	3:00 - 6:00 PM	2221	1.0%
	Wed Oct 11, 2000	3:00 - 6:00 PM	2325	5.0%
	Wed Apr 21, 1999	3:00 - 6:00 PM	2058	4.9%
	Tue Dec 8, 1998	3:00 - 6:00 PM	2236	1.0%
	Tue Oct 21, 1997	3:00 - 6:00 PM	2050	2.8%
	Tue Jun 11, 1996	3:00 - 6:00 PM	1716	4.3%
	Tue May 16, 1995	3:00 - 6:00 PM	1996	9.3%
	Wed Nov 16, 1994	3:00 - 5:00 PM	858	2.3%
	Wed May 26, 1993	3:00 - 6:00 PM	2348	1.7%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2004 for off-peak direction

# SANTA CLARA-280

Leland Avenue to Magdalena Avenue

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu Oct 7, 2004	6:00 - 9:00 AM	2213	2.4%
	Thu Jun 5, 2003	6:00 - 9:00 AM	1558	7.4%
	Tue May 21, 2002	6:00 - 9:00 AM	1355	5.4%
	Tue Nov 6, 2001	6:00 - 9:00 AM	1253	1.6%
	Wed Mar 29, 2000	6:00 - 9:00 AM	2086	1.7%
	Thu Nov 4, 1999	6:30 - 9:00 AM	1884	0.3%
	Wed Dec 9, 1998	6:00 - 9:00 AM	2235	3.7%
	Wed Apr 23, 1997	6:00 - 9:00 AM	1851	0.10%
	Tue Jun 11, 1996	6:00 - 9:00 AM	1762	1.40%
	Thu May 18, 1995	6:00 - 9:00 AM	2510	1.50%
	Wed Nov 16, 1994	6:45 - 9:00 AM	1124	2.9%
	Wed Nov 17, 1993	6:30 - 9:00 AM	2639	1.3%
<b>P.M. PEAK</b>	Year 2004	-	-	-
	Year 2003	-	-	-
	Tue May 28, 2002	3:00 - 6:00 PM	1081	1.5%
	Wed Apr 4, 2001	3:00 - 6:00 PM	1160	0.9%
	Thu Apr 13, 2000	3:00 - 6:00 PM	1106	5.4%
	Tue Apr 20, 1999	3:00 - 6:00 PM	938	0.2%
	Tue Sep 15, 1998	3:00 - 6:00 PM	955	5.3%
	Wed, Apr 23, 1997	3:00 - 6:00 PM	1975	0.5%
	Thu Dec 12, 1996	3:00 - 5:30 PM	1205	4.2%
	Wed May 17, 1995	3:00 - 6:00 PM	1095	13.2%
	Thu Nov 17, 1994	3:00 - 5:00 PM	584	9.1%
	Thu Jun 10, 1993	3:00 - 6:00 PM	1238	4.2%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2004 for off-peak direction

# SAN FRANCISCO-80

## HOV RAMP

Sterling Street on-ramp to SFOBB

# Eastbound-P.M.

Typical data for 2004 <sup>(5)</sup>

## PEAK PERIOD <sup>(4)</sup>

3:30 - 7:00 PM

## PEAK HOUR

5:00 - 6:00 PM

### VEHICLES

	HOV Lane	SOV Lane	HOV Lane	SOV Lane
Motorcycles	125	—	41	—
Buses	15	—	4	—
Carpool <sup>(1)</sup>	1676	—	582	—
2 - seaters <sup>(2)</sup>	533	—	185	—
Vanpools	92	—	23	—
Trucks	83	—	37	—
Violators	637	—	136	—
<b>TOTAL</b>	<b>3161</b>	<b>N/A</b>	<b>1008</b>	<b>N/A</b>

### PERSONS

	HOV Lane	SOV Lane	HOV Lane	SOV Lane
Motorcycles	125	—	41	—
Buses	525	—	140	—
Carpool <sup>(1)</sup>	5196	—	1804	—
2 - seaters <sup>(2)</sup>	1066	—	370	—
Vanpools	920	—	230	—
Trucks	83	—	37	—
Violators	985	—	228	—
<b>TOTAL</b>	<b>8900</b>	<b>N/A</b>	<b>2850</b>	<b>N/A</b>

### RATES

HOV Lane occupancy rate	2.8 persons/veh	2.8 persons/veh
Violation rate <sup>(3)</sup> (HOV Lane)	20.2 %	13.5 %

- NOTES:** (1) 3 or more persons per vehicle.  
 (2) 2 - seater vehicles with 2 persons.  
 (3)  $\text{Violation rate} = \frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$   
 (4) HOV lane in operation from 3:30 to 7:00 PM.  
 (5) Observations conducted 10/12/04 at the Sterling Street on-ramp

# SAN FRANCISCO-80

## HOV RAMP

Sterling Street On-Ramp to SFOBB

# Violation History

## Eastbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>P.M. PEAK</b>	Tue Oct 12, 2004	3:30 - 7:00 PM	3161	<b>20.2%</b>
	Wed Apr 30, 2003	3:30 - 7:00 PM	2185	<b>22.6%</b>
	Tue Sep 17, 2002	3:30 - 7:00 PM	2713	<b>15.1%</b>
	Wed Oct 10, 2001	3:30 - 7:00 PM	3133	<b>10.4%</b>
	Thu Oct 19, 2000	3:30 - 7:00 PM	3327	<b>6.5%</b>
	Thu Oct 14, 1999	3:30 - 7:00 PM	3566	<b>27.5%</b>
	Thu Dec 3, 1998	3:30 - 7:00 PM	3276	<b>29.0%</b>
	Wed Jun 11, 1997	3:30 - 7:00 PM	2810	<b>12.4%</b>
	Tue Apr 23, 1996	3:30 - 7:00 PM	1891	<b>22.2%</b>
	Wed Mar 29, 1995	3:30 - 7:00 PM	2692	<b>52.6%</b>
	Tue May 17, 1994	4:00 - 6:00 PM	787	<b>28.3%</b>
	Wed Oct 13, 1993	4:00 - 6:00 PM	1023	<b>34.6%</b>
	Thu Jun 4, 1992	4:00 - 6:00 PM	1051	<b>35.0%</b>
	Tue Dec 3, 1991	4:00 - 6:00 PM	1427	<b>28.0%</b>
	Thu Nov 15, 1990	4:00 - 6:00 PM	701	<b>58.3%</b>
	Tue Apr 18, 1989	4:30 - 6:00 PM	821	<b>17.4%</b>
	Tue Apr 26, 1988	4:00 - 6:00 PM	1599	<b>69.2%</b>
	Tue Oct 20, 1987	4:00 - 6:00 PM	1103	<b>53.3%</b>
	Tue Apr 21, 1987	4:00 - 6:00 PM	960	<b>40.1%</b>
	Tue Oct 21, 1986	4:00 - 6:00 PM	1576	<b>50.7%</b>
	Tue Oct 22, 1985	4:00 - 6:00 PM	1252	<b>38.4%</b>

**NOTES:** *Evening period of operation from 3:30 to 7:00 P.M.*



# SAN MATEO-101

Whipple Avenue to SM/SCL County Line

# Southbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 7:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	38	6	18	5
Buses	2	0	0	0
Carpools <sup>(1)</sup>	1304	309	680	150
Vanpools	9	0	5	0
Single Occ. <sup>(2)</sup>	—	8191	—	4521
Violators	2	—	0	—
<b>TOTAL</b>	<b>1355</b>	<b>8506</b>	<b>703</b>	<b>4676</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 7:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	38	6	18	5
Buses	70	0	0	0
Carpools <sup>(1)</sup>	2753	664	1449	325
Vanpools	90	0	50	0
Single Occ. <sup>(2)</sup>	—	8191	—	4521
Violators	2	—	0	—
<b>TOTAL</b>	<b>2953</b>	<b>8861</b>	<b>1517</b>	<b>4851</b>

RATES	PEAK PERIOD <sup>(4)</sup> 7:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.2 persons/veh		2.2 persons/veh	
Mixed Flow occupancy rate	1.0 persons/veh		1.0 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.1 %		0.0 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 12/15/04 at the Woodside Road I/C

# SAN MATEO-101

Whipple Avenue to SM/SCL County Line

# Southbound - P.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	13	4	7	3
Buses	0	11	0	1
Carpools <sup>(1)</sup>	1255	895	481	290
Vanpools	8	17	3	3
Single Occ. <sup>(2)</sup>	—	13321	—	4830
Violators	20	—	2	—
<b>TOTAL</b>	1296	14248	493	5127

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	13	4	7	3
Buses	0	385	0	35
Carpools <sup>(1)</sup>	2649	1933	1014	633
Vanpools	80	170	30	30
Single Occ. <sup>(2)</sup>	—	13321	—	4830
Violators	20	—	2	—
<b>TOTAL</b>	2762	15813	1053	5531

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.5 %		0.4 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 10/26/04 at the Woodside Road I/C

# SAN MATEO-101

SM/SCL County Line to Whipple Avenue

## Northbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	16	2	10	0
Buses	1	5	0	4
Carpools <sup>(1)</sup>	1295	297	509	100
Vanpools	15	0	6	0
Single Occ. <sup>(2)</sup>	—	9210	—	3162
Violators	10	—	1	—
<b>TOTAL</b>	<b>1337</b>	<b>9514</b>	<b>526</b>	<b>3266</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	16	2	10	0
Buses	35	175	0	140
Carpools <sup>(1)</sup>	2664	648	1053	210
Vanpools	150	0	60	0
Single Occ. <sup>(2)</sup>	—	9210	—	3162
Violators	10	—	1	—
<b>TOTAL</b>	<b>2875</b>	<b>10035</b>	<b>1124</b>	<b>3512</b>

RATES	PEAK PERIOD <sup>(4)</sup> 6:00 - 9:00 AM		PEAK HOUR 8:00 - 9:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.2 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.7 %		0.2 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 5:00 to 9:00 A.M.

(5) Observations conducted 12/01/04 at the Woodside Road I/C

# SAN MATEO-101

SM/SCL County Line to Whipple Avenue

## Northbound - P.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	38	21	15	4
Buses	5	17	1	6
Carpools <sup>(1)</sup>	1879	877	746	208
Vanpools	5	8	0	0
Single Occ. <sup>(2)</sup>	—	9642	—	3556
Violators	2	—	1	—
<b>TOTAL</b>	1929	10565	763	3774

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	38	21	15	4
Buses	175	595	35	210
Carpools <sup>(1)</sup>	3904	1852	1551	442
Vanpools	50	80	0	0
Single Occ. <sup>(2)</sup>	—	9642	—	3556
Violators	2	—	1	—
<b>TOTAL</b>	4169	12190	1602	4212

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:00 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.2 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.2 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	0.1 %		0.1 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 3:00 to 7:00 P.M.

(5) Observations conducted 10/28/04 at the Woodside Road I/C

# SAN MATEO-101

Whipple Avenue to the SM/SCL County Line

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Wed Dec 15, 2004	7:00 - 9:00 AM	1355	0.1%
	Wed Apr 9, 2003	6:00 - 9:00 AM	1701	0.6%
	Tue Mar 26, 2002	6:00 - 9:00 AM	1549	3.5%
	Thu Mar 22, 2001	6:00 - 9:00 AM	1746	2.2%
	Tue Apr 25, 2000	6:00 - 9:00 AM	1849	7.0%
	Thu Dec 2, 1999	6:45 - 9:00 AM	1915	5.2%
	Tue Mar 10, 1998	6:00 - 9:00 AM	2711	0.8%
	Tue Sept 23, 1997	7:00 - 9:00 AM	1761	0.7%
	Wed Mar 27, 1996	6:00 - 9:00 AM	1681	4.6%
	Wed Jun 7, 1995	6:00 - 9:00 AM	1922	3.0%
	Tue Sep 27, 1994	6:45 - 9:00 AM	2078	4.2%
	Wed Jun 16, 1993	6:00 - 9:00 AM	1236	17.3%
<b>P.M. PEAK</b>	Tue Oct 26, 2004	3:00 - 6:00 PM	1296	1.5%
	Wed May 14, 2003	3:00 - 6:00 PM	1488	2.5%
	Wed Oct 2, 2002	3:00 - 6:00 PM	1895	3.2%
	Thu Nov 8, 2001	3:00 - 5:30 PM	1685	7.0%
	Thu Oct 12, 2000	3:00 - 6:00 PM	2245	3.3%
	Wed Dec 8, 1999	3:00 - 5:15 PM	1683	0.5%
	Thu Dec 10, 1998	3:00 - 6:00 PM	2537	1.6%
	Wed Nov 5, 1997	3:00 - 6:00 PM	2514	0.6%
	Wed Mar 27, 1996	3:00 - 6:00 PM	2836	1.9%
	Tue Sept 26, 1995	3:00 - 6:00 PM	2505	2.0%
	Tue Oct 18, 1994	3:00 - 6:00 PM	2613	7.0%
	Tue May 11, 1993	3:00 - 6:00 PM	1535	19.6%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.

# SAN MATEO-101

SM/SCL County Line to Whipple Avenue

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Wed Dec 1, 2004	6:00 - 9:00 AM	1337	0.7%
	Thu Oct 9, 2003	7:00 - 9:00 AM	1031	1.5%
	Tue Apr 9, 2002	6:45 - 9:00 AM	865	5.7%
	Wed Oct 31, 2001	6:00 - 9:00 AM	1662	2.1%
	Thu Oct 12, 2000	6:00 - 9:00 AM	2964	4.7%
	Thu Apr 29, 1999	6:00 - 9:00 AM	2088	0.5%
	Tue Oct 27, 1998	6:00 - 9:00 AM	1873	2.1%
	Thu Sept 25, 1997	7:00 - 9:00 AM	1348	0.1%
	Wed Jun 5, 1996	6:00 - 9:00 AM	1799	3.3%
	Thu Jun 15, 1995	6:00 - 9:00 AM	2272	2.9%
	Tue Apr 19, 1994	6:00 - 9:00 AM	2549	5.8%
	Tue Jun 8, 1993	6:00 - 9:00 AM	1695	4.2%
<b>P.M. PEAK</b>	Thu Oct 28, 2004	3:00 - 6:00 PM	1929	0.1%
	Tue Apr 8, 2003	3:00 - 6:00 PM	2327	2.0%
	Wed Jun 5, 2002	3:00 - 6:00 PM	1969	3.4%
	Wed Nov 14, 2001	3:00 - 5:30 PM	1675	0.2%
	Tue Sep 12, 2000	3:00 - 6:00 PM	2329	14.3%
	Tue Oct 26, 1999	3:00 - 6:00 PM	2987	8.5%
	Wed Dec 9, 1998	3:00 - 6:00 PM	2670	6.6%
	Tue Apr 29, 1997	3:00 - 6:00 PM	2616	0.9%
	Thu Sep 26, 1996	3:00 - 6:00 PM	2619	5.8%
	Tue Jun 6, 1995	3:00 - 6:30 PM	2617	4.4%
	Wed Apr 20, 1994	3:00 - 6:00 PM	3530	3.1%
	Wed Jun 2, 1993	3:00 - 6:00 PM	1763	8.2%

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 7:00 PM.

# SOLANO-80

Carquinez Bridge Toll Plaza

## Eastbound - P.M.

Typical data for 2004 <sup>(6)</sup>

VEHICLES	PEAK PERIOD <sup>(5)</sup> 3:00 to 7:00 P.M.		PEAK HOUR 5:00 to 6:00 P.M.	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	267	—	88	—
Buses <sup>(4)</sup>	47	—	14	—
Carpools <sup>(1)</sup>	1990	—	648	—
2 - seaters <sup>(2)</sup>	599	—	144	—
Vanpools	126	—	44	—
Violators (HOV only)	313	—	45	—
<b>TOTAL</b>	<b>3342</b>	<b>16457 <sup>(7)</sup></b>	<b>983</b>	<b>4388</b>

PERSONS	PEAK PERIOD <sup>(5)</sup> 3:00 to 7:00 P.M.		PEAK HOUR 5:00 to 6:00 P.M.	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	176	—	88	—
Buses <sup>(4)</sup>	2170	—	490	—
Carpools <sup>(1)</sup>	5617	—	2009	—
2 - seaters <sup>(2)</sup>	1520	—	288	—
Vanpools	2530	—	440	—
Violators (HOV only)	451	—	65	—
<b>TOTAL</b>	<b>12464</b>	<b>18103 <sup>(7)</sup></b>	<b>3380</b>	<b>4827</b>

RATES	PEAK PERIOD <sup>(5)</sup> 3:00 to 7:00 P.M.		PEAK HOUR 5:00 to 6:00 P.M.	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	3.7 persons/veh	—	3.4 persons/veh	—
Mixed Flow Occupancy Rate <sup>(7)</sup>	1.1 persons/veh	—	1.1 persons/veh	—
Violation rate <sup>(3)</sup> (HOV Lane)	9.4 %	—	4.6 %	—

**NOTES:** (1) 3 or more persons per vehicle.

(2) 2 - seater vehicles with 2 persons.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) Assumed PM bus occupancy = 35 persons/vehicle.

(5) HOV lane in operation from 3:00 to 7:00 P.M.

(6) Observations conducted 10/13/04 at the Carquinez Bridge Toll Plaza.

(7) Data from Toll Plaza vehicle Registration Report.

# SOLANO-80

Carquinez Bridge Toll Plaza

## Violation History

Eastbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Year 2004	-	-	-
	Year 2003	-	-	-
	Thu Nov 14, 2002	5:00 - 10:00 AM	706	10.1%
	Thu May 31, 2001	5:00 - 10:00 AM	804	24.5%
	Thu Nov 16, 2000	5:00 - 10:00 AM	773	34.4%
	Wed Mar 10, 1999	6:00 - 10:00 AM	664	26.2%
	Wed Sep 16, 1998	6:00 - 10:00 AM	559	27.2%
	Tue Dec 2, 1997	6:00 - 10:00 AM	406	7.9%
<b>P.M. PEAK</b>	Wed Oct 13, 2004	3:00 - 7:00 PM	3342	9.4%
	Thu May 15, 2003	3:00 - 7:00 PM	3360	8.8%
	Thu Sep 26, 2002	3:00 - 7:00 PM	3429	9.5%
	Thu Mar 29, 2001	3:00 - 7:00 PM	3493	1.2%
	Tue Oct 17, 2000	3:00 - 7:00 PM	3373	9.5%
	Wed Sep 29, 1999	3:00 - 7:00 PM	2945	12.9%
	Wed Sep 16, 1998	3:00 - 7:00 PM	2203	12.4%
	Thu Nov 6, 1997	3:00 - 6:00 PM	1260	6.0%

**NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM  
(b) Evening period of operation from 3:00 to 7:00 PM.  
(c) Data was not collected in 2004 for off-peak direction



# SONOMA-101

Route 12 to Wilfred Avenue

## Southbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 7:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	51	4	23	2
Buses	1	2	0	1
Carpools <sup>(1)</sup>	702	236	365	146
Vanpools	1	4	0	0
Single Occ. <sup>(2)</sup>	—	6319	—	3230
Violators	17	—	6	—
<b>TOTAL</b>	<b>772</b>	<b>6565</b>	<b>394</b>	<b>3379</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 7:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	51	4	23	2
Buses	35	70	0	35
Carpools <sup>(1)</sup>	1451	497	743	310
Vanpools	10	40	0	0
Single Occ. <sup>(2)</sup>	—	6319	—	3230
Violators	17	—	6	—
<b>TOTAL</b>	<b>1564</b>	<b>6930</b>	<b>772</b>	<b>3577</b>

RATES	PEAK PERIOD <sup>(4)</sup> 7:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.0 persons/veh		2.0 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.2 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	2.2 %		1.5 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 7:00 to 9:00 A.M.

(5) Observations conducted 10/07/04 at South of Hearn Avenue Interchange

# SONOMA-101

Route 12 to Wilfred Avenue

## Southbound - P.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:30 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	32	4	12	2
Buses	13	30	3	7
Carpools <sup>(1)</sup>	2730	1182	995	315
Vanpools	0	1	0	0
Single Occ. <sup>(2)</sup>	—	10512	—	3124
Violators	34	—	11	—
<b>TOTAL</b>	<b>2809</b>	<b>11729</b>	<b>1021</b>	<b>3448</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:30 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	32	4	12	2
Buses	455	1050	105	245
Carpools <sup>(1)</sup>	5618	2509	2064	687
Vanpools	0	10	0	0
Single Occ. <sup>(2)</sup>	—	10512	—	3124
Violators	34	—	11	—
<b>TOTAL</b>	<b>6139</b>	<b>14085</b>	<b>2192</b>	<b>4058</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:30 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.2 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.2 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.4 persons/veh		1.4 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	1.2 %		1.1 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 3:00 to 6:30 P.M.

(5) Observations conducted 10/28/04 at South of Hearn Avenue Interchange

# SONOMA-101

Wilfred avenue to Route 12

## Northbound - A.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 7:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	21	6	8	1
Buses	7	19	0	10
Carpools <sup>(1)</sup>	608	221	318	115
Vanpools	1	0	0	0
Single Occ. <sup>(2)</sup>	—	6294	—	3400
Violators	29	—	16	—
<b>TOTAL</b>	<b>666</b>	<b>6540</b>	<b>342</b>	<b>3526</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 7:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	21	6	8	1
Buses	245	665	0	350
Carpools <sup>(1)</sup>	1295	464	672	242
Vanpools	10	0	0	0
Single Occ. <sup>(2)</sup>	—	6294	—	3400
Violators	29	—	16	—
<b>TOTAL</b>	<b>1600</b>	<b>7429</b>	<b>696</b>	<b>3993</b>

RATES	PEAK PERIOD <sup>(4)</sup> 7:00 - 9:00 AM		PEAK HOUR 7:00 - 8:00 AM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.4 persons/veh		2.0 persons/veh	
Mixed Flow occupancy rate	1.1 persons/veh		1.1 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.2 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	4.4 %		4.7 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane}}{\text{Total no. of vehicles in HOV lane}} \times 100\%$

(4) HOV lane in operation from 7:00 to 9:00 A.M.

(5) Observations conducted 10/14/04 at North of Todd Road Interchange

# SONOMA-101

Wilfred Avenue to Route 12

## Northbound - P.M.

Typical data for 2004 <sup>(5)</sup>

VEHICLES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:30 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	45	14	9	5
Buses	4	24	2	4
Carpools <sup>(1)</sup>	1851	1216	595	376
Vanpools	2	6	1	1
Single Occ. <sup>(2)</sup>	—	10053	—	3030
Violators	43	—	7	—
<b>TOTAL</b>	<b>1945</b>	<b>11313</b>	<b>614</b>	<b>3416</b>

PERSONS	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:30 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
Motorcycles	45	14	9	5
Buses	140	840	70	140
Carpools <sup>(1)</sup>	3825	2590	1220	830
Vanpools	20	60	10	10
Single Occ. <sup>(2)</sup>	—	10053	—	3030
Violators	43	—	7	—
<b>TOTAL</b>	<b>4073</b>	<b>13557</b>	<b>1316</b>	<b>4015</b>

RATES	PEAK PERIOD <sup>(4)</sup> 3:00 - 6:30 PM		PEAK HOUR 5:00 - 6:00 PM	
	HOV Lane	Mixed Flow Lanes	HOV Lane	Mixed Flow Lanes
HOV Lane occupancy rate	2.1 persons/veh		2.1 persons/veh	
Mixed Flow occupancy rate	1.2 persons/veh		1.2 persons/veh	
Overall occupancy (incl. buses)	1.3 persons/veh		1.3 persons/veh	
Violation rate <sup>(3)</sup> (HOV Lane)	2.2 %		1.1 %	

**NOTES:** (1) Two or more occupants per vehicle.

(2) Mixed flow lanes only.

(3) Violation rate =  $\frac{\text{no. of violators in HOV lane} \times 100\%}{\text{Total no. of vehicles in HOV lane}}$

(4) HOV lane in operation from 3:00 to 6:30 P.M.

(5) Observations conducted 10/21/04 at North of Todd Rd Interchange

# SONOMA-101

Route 12 to Wilfred Avenue

## Violation History

Southbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu Oct 7, 2004	7:00 - 9:00 AM	772	2.2%
	Thu Apr 10, 2003	6:30 - 9:30 AM	997	4.8%
	Tue Dec 10, 2002	6:30 - 9:30 AM	951	5.8%
<b>P.M. PEAK</b>	Thu Oct 28, 2004	3:00 - 6:30 PM	2809	1.2%
	Thu Apr 10, 2003	3:00 - 7:00 PM	2224	2.7%
	Tue Dec 10, 2002	3:00 - 7:00 PM	1645	2.9%

**NOTES:** (a) Morning period of operation from 7:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 6:30 PM.

# SONOMA-101

Wilfred Avenue to Route 12

## Violation History

Northbound

	DATE	PERIOD MONITORED	TOTAL HOVL VOLUME	VIOLATION RATE
<b>A.M. PEAK</b>	Thu Oct 14, 2004	7:00 - 9:00 AM	666	4.4%
	Wed Apr 9, 2003	6:30 - 9:30 AM	839	6.0%
	Thu Dec 5, 2002	6:30 - 9:30 AM	696	6.6%
<b>P.M. PEAK</b>	Thu Oct 21, 2004	3:00 - 6:30 PM	1945	2.2%
	Thu Oct 16, 2003	3:00 - 7:00 PM	2172	3.2%
	Thu Dec 5, 2002	3:00 - 7:00 PM	2145	1.9%

**NOTES:** (a) Morning period of operation from 7:00 to 9:00 AM.  
(b) Evening period of operation from 3:00 to 6:30 PM.

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# **HOV TOLL GATES**

## **VOLUME/PERSON DATA**

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# HOV TOLL GATE

## Richmond-San Rafael Bridge Toll Plaza

### CONTRA COSTA - 580

## Westbound - A.M.

Typical data for 2004 <sup>(3)</sup>

	PEAK PERIOD <sup>(2)</sup> 6:00 - 10:00 AM	PEAK HOUR 7:00 - 8:00 AM
<b>VEHICLES</b>		
Motorcycles	22	0
Buses	38	9
Vanpools	13	3
Carpools <sup>(1)</sup>	632	252
<b>Total HOVs</b>	<b>705</b>	<b>264</b>
1 Occupancy	797	172
2 Occupancy	187	70
<b>TOTAL</b>	<b>1689</b>	<b>506</b>
<b>PERSONS</b>		
Motorcycles	22	0
Buses	1330	315
Vanpools	130	30
Carpools <sup>(1)</sup>	1770	706
<b>Total HOVs</b>	<b>3252</b>	<b>1051</b>
1 Occupancy	797	172
2 Occupancy	374	140
<b>TOTAL</b>	<b>4423</b>	<b>1363</b>
<b>RATES</b>		
HOV Occupancy Rate	4.6 persons/veh	4.0 persons/veh
Mixed Flow Occupancy Rate	1.2 persons/veh	1.3 persons/veh
Overall Occupancy (incl. buses)	2.6 persons/veh	2.7 persons/veh

**NOTES:** (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.

(2) HOV operation hours from 5:00 to 10:00 AM and 3:00 to 6:00 PM.

(3) Observations conducted 12/9/04 at Toll Plaza.



# HOV TOLL GATE

## Richmond-San Rafael Bridge Toll Plaza

### CONTRA COSTA - 580

## Westbound - P.M.

Typical data for 2004 <sup>(3)</sup>

	PEAK PERIOD <sup>(2)</sup> 3:00 - 6:00 PM	PEAK HOUR 3:00 - 4:00 PM
<b>VEHICLES</b>		
Motorcycles	41	1
Buses	4	0
Vanpools	12	1
Carpools <sup>(1)</sup>	185	33
<b>Total HOVs</b>	<b>242</b>	<b>35</b>
1 Occupancy	136	113
2 Occupancy	18	14
<b>TOTAL</b>	<b>396</b>	<b>162</b>
<b>PERSONS</b>		
Motorcycles	41	1
Buses	140	0
Vanpools	120	10
Carpools <sup>(1)</sup>	518	92
<b>Total HOVs</b>	<b>819</b>	<b>103</b>
1 Occupancy	136	113
2 Occupancy	36	28
<b>TOTAL</b>	<b>991</b>	<b>244</b>
<b>RATES</b>		
HOV Occupancy Rate	3.4 persons/veh	3.0 persons/veh
Mixed Flow Occupancy Rate	1.1 persons/veh	1.1 persons/veh
Overall Occupancy (incl. buses)	2.5 persons/veh	1.5 persons/veh

**NOTES:** (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.

(2) HOV operation hours from 5:00 to 10:00 AM and 3:00 to 6:00 PM.

(3) Observations conducted 10/14/04 at Toll Plaza.

# HOV TOLL GATE

Antioch Bridge Toll Plaza

CONTRA COSTA -160

Northbound P.M.

Typical data for 2004<sup>(3)</sup>

## PEAK PERIOD<sup>(2)</sup>

3:00 to 6:00 P.M.

## PEAK HOUR

4:00 to 5:00 P.M.

### VEHICLES

Motorcycles	3	1
Buses	0	0
Vanpools	2	1
Carpools <sup>(1)</sup>	54	16
Total HOV	<b>59</b>	<b>18</b>
1 Occupancy	1584	559
2 Occupancy	279	110
<b>TOTAL</b>	<b>1922</b>	<b>687</b>

### PERSONS

Motorcycles	3	1
Buses	0	0
Vanpools	20	10
Carpools <sup>(1)</sup>	167	50
Total HOV	<b>190</b>	<b>61</b>
1 Occupancy	1584	559
2 Occupancy	558	220
<b>TOTAL</b>	<b>2332</b>	<b>840</b>

### RATES

HOV Occupancy Rate	3.2 persons/veh	3.4 persons/veh
Overall occupancy (incl. buses)	1.2 persons/veh	1.2 persons/veh

- NOTES:** (1) 3 or more occupants per vehicle & 2-seater vehicles w/2 occupants.  
(2) HOV operation hours 3:00 to 7:00 PM.  
(3) Observations conducted 11/16/04 at Toll Plaza

# HOV TOLL GATE

Benicia-Martinez Bridge Toll Plaza

SOLANO - 680

Northbound P.M.

Typical data for 2004<sup>(3)</sup>

## PEAK PERIOD<sup>(2)</sup>

3:00 to 6:00 P.M.

## PEAK HOUR

5:00 to 6:00 P.M.

### VEHICLES

Motorcycles	48	15
Buses	9	2
Vanpools	30	11
Carpools <sup>(1)</sup>	195	44
Total HOV	<b>282</b>	<b>72</b>
1 Occupancy	10117	3574
2 Occupancy	1190	280
<b>TOTAL</b>	<b>11589</b>	<b>3926</b>

### PERSONS

Motorcycles	48	15
Buses	315	70
Vanpools	300	110
Carpools <sup>(1)</sup>	605	136
Total HOV	<b>1268</b>	<b>331</b>
1 Occupancy	10117	3574
2 Occupancy	2380	560
<b>TOTAL</b>	<b>13765</b>	<b>4465</b>

### RATES

HOV Occupancy Rate	4.5 persons/veh	4.6 persons/veh
Overall occupancy (incl. buses)	1.2 persons/veh	1.1 persons/veh

- NOTES:** (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.  
(2) HOV operation hours from 3:00 to 7:00 PM.  
(3) Observations conducted 11/17/04 at Benicia Bridge Toll Plaza.